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International Union of History and Philosophy of Science
Division of History of Science and Technology
IUHPS/DHST

**XXIII International Congress
of
History of Science and Technology**

Ideas and Instruments in Social Context

PROGRAM

28 July - 2 August 2009
Budapest, Hungary

Welcoming Address

On behalf of the Local Organizing Committee let me welcome you in the capital of Hungary. We are very glad that four years ago, in Beijing, you voted for the next Congress being organized in Budapest. It is really a great honour to host, after Mexico and China, the Congress of the History of Science, and Technology this time the 23rd.

We are quite sure that this Congress is the biggest ever of its kind. We are welcoming here 1300 registered participants, mostly authors, from 60 different countries. We are going to work in the coming days in 52 announced sessions and 79 self-organized symposia. The General Assembly of the International Academy of the History of Science, more than twenty General Assemblies of the international committees, meetings of special groups, and self-organized round-table meetings will take place during the week. It seems that the main theme of the Congress ("Ideas and Instruments in Social Context) was well chosen, and got many researchers to Budapest. The anniversaries of Galileo (1609-2009) and Darwin (1809-1859-2009) also will be duly commemorated. Some other topics aroused equally great interest among the historians of science all over the world as well as among the general public.

During the coffee breaks you probably will spend some time in the beautifully decorated lounge of the Budapest University of Technology and Economics. You will notice that this building and its garden are a monument worth studying more closely from the aspect of history of science and technology. Since 1927 busts of eminent professors have been erected to commemorate leading academics and teachers of the University. At each bust you will find an explanation about the activities of these national heroes of science and technology. First to be mentioned is the bust of Palatine Joseph, younger brother of emperor Francis I of Hapsburg-Lotaringia, who had great merits about the foundation of this university. The rector, during whose time the main building was erected, was chemist Vince Wartha, re-discoverer of a special glaze for ceramics; walking out to the garden the row of busts continues: among others, we can see here the bust of mathematician and chemist John von Neumann, a former student of this University, whose name, perhaps, does not require closer explanation.

In order to honour the memory of its great scientists, Hungary keeps erecting a considerable number of busts or memorial tables. Among the sites to be visited we mention the nearby University of Sciences, the Trefort Garden, near of some of the hotels accommodating the participants, and the Hungarian Museum for Science, Technology and Transport in the City Park. It would be a great honour if you could visit these sites in your spare time. Also some of the field trips are directed towards these sites.

Last but not least let me express our deepest gratitude to the institutions and personalities supporting and/or sponsoring the Congress. Among our supporters we shall first mention the Budapest University of Technology and Economics which willingly let us their lecture halls and facilities. Thanks are due to the Federation of Technical and Scientific Societies and the Hungarian Academy of Sciences. Our main sponsors were the Hungarian UNESCO Committee and the National Office of Research and Technology. We must mention the assiduous and professional work of SCOPE Ltd., the group that provided the administrative background, particularly Gusztáv Hencsey, Mariann Kindl, and Viktor Richter, who became a close friend of us all during the past 18 months. Individuals, who helped the Congress with enthusiastic voluntary work, were the members of the Local Organizing Committee, all

outstanding scientists of their trade, and Mrs. Catherine Jami, assessor of IUHPS/DHST, who provided the French translations of the circulars. Finally, this Congress could not have been brought into being without the wise and professional advice of Professor Ronald Numbers, and Professor Efthymios Nicolaidis, President and Secretary General, respectively, of IUHPS/DHST. Our special gratitude goes to the plenary speakers, the organizers and speakers of the symposia and the speakers of the sessions as well as to all our participants, who managed to learn the tricks of the registration system.

At this point I want to wish you, together with all the Hungarian organizers, a very nice and useful time in our capital.

Vámos Éva

Éva Vámos

Chair of the Local Organizing Committee

Helgyi heveredbiz. elusce

Organization

International Union of History and Philosophy of Science Division of History of Science and Technology IUHPS/DHST

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Executive LOC

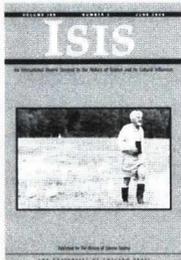
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Journals of Interest



ISIS Sponsor: The History of Science Society

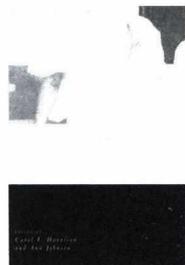
Since its inception in 1912, *Isis* has featured scholarly articles, research notes, and commentary on the history of science, medicine, and technology, and their cultural influences. Each issue begins with topical articles providing in-depth coverage of leading issues in the history of science, followed by News of the Profession and an Essay Review. *Isis* also provides an extensive collection of book reviews covering all fields and time periods in the history of science.

Osiris 2010: Volume 24

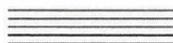
The essays in *Science, Technology, and National Identity* argue for the formative role of science and technology in the creation of national identity, with examples drawn from eastern and western nationstates. The authors claim that scientific ability became a marker of national character, and they further explore ways in which

modern science and the nation state grew up together, each fully aware of the other's capabilities and prepared to use them.

Guest Editors: Carol E. Harrison and Ann Johnson



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Since its inception in 1934, *Philosophy of Science*, along with the Philosophy of Science Association, has been dedicated to advancing study and free discussion from diverse standpoints in the philosophy of science.

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Table of Contents

Program Schedule	8
Plenary Sessions	10
List of Symposia	11
List of Regular Sessions	15
Detailed Program of Symposia	17
Detailed Program of Regular Sessions	81
Special Meetings during ICHST 2009	127
Field Trips	128
Book Exhibition	130
Evening Programs	131
Optional Evening Programs	132
Optional Tours	132
General Information	133
Special Acknowledgement	135

Program Schedule

Date	AM	PM	Evening
27 July Monday		16.00 – 19.00 Registration	19.00 – 21.00 Welcome Reception
28 July Tuesday	08.30 – 09.00 Opening Ceremony 09.00 – 11.00 Plenary Lectures <i>11.00 – 11.30 Coffee Break</i> 11.30 – 13.30 S04, S09, S21, S35, S41, S46, S47, S53, S58, S69, S71, S87, S96 T02, T04, T09-05, T09-06, T09-07, T23, T26, T31, T39	15.00 – 17.00 S04, S08, S09, S21, S35, S41, S46, S47, S53, S58, S69, S71, S87, S96 T02, T04, T09-05, T09-06, T09- 07, T23, T26, T31, T39 <i>17.00 – 17.30 Coffee Break</i> 17.30 -19.30 S04, S08, S09, S21, S35, S41, S47, S53, S58, S59, S69, S74, S88, S96 T02, T04, T09-05, T09-06, T23, T26, T31, T39	20.00 – 22.00 Dinner on the Boat “Európa” <i>(optional)</i>
29 July Wednesday	09.00 – 11.00 S09, S18, S22, S28, S35, S49, S50, S56, S69, S70, S72 T03, T08-02, T09-01, T09-05, T09-06, T15, T23, T26, T28, T30, T31, T36 <i>11.00 – 11.30 Coffee Break</i> 11.30 – 13.30 S15, S18, S22, S28, S35, S49, S50, S56, S69, S70, S94 T03, T08-02, T09-01, T09-05, T09-06, T15, T23, T26, T28, T31, T36, T38	15.00 – 17.00 S01, S13, S14, S15, S29, S31, S37, S42, S56, S70, S73 T08-02, T09-01, T09-02, T09- 12, T15, T16, T20, T22, T25, T26, T29, T36, T38 <i>17.00 – 17.30 Coffee Break</i> 17.30 – 19.30 S01, S14, S15, S25, S29, S31, S37, S42, S56, S70, S73, S82 T09-01, T09-02, T09-12, T12, T15, T16, T20, T22, T25, T29, T36, T38	
30 July Thursday	09.00 – 13.30 Optional Technical Visits IUHPS/DHST General Assembly I	15.00 – 17.00 S01, S03, S31, S33, S34, S37, S42, S75, S93 T03, T07, T08-05, T09-02, T16, T35 <i>17.00 – 17.30 Coffee Break</i> 17.30 – 19.30 S01, S03, S31, S33, S34, S37, S42, S76, S93 T03, T07, T08-05, T09-02, T16, T35	20.00 – 21.00 Organ Concert

<p>31 July Friday</p>	<p>09.00 – 11.00 Plenary Lectures <i>11.00 – 11.30 Coffee Break</i></p> <p>11.30 – 13.30 S03, S34, S40, S48, S51, S52, S54, S66, S77, S80, S83, S91, S93</p> <p>T03, T05, T07, T09-02, T09-04, T09-14, T16, T21, T32, T35, T37</p>	<p>15.00 – 17.00 S12, S34, S40, S48, S51, S52, S54, S65, S66, S80, S83, S91, S93</p> <p>T05, T07, T09-02, T09-04, T09-14, T16, T21, T32, T35, T37</p> <p><i>17.00 – 17.30 Coffee Break</i></p> <p>17.30 – 19.30 S07, S12, S32, S39, S40, S43, S45, S48, S54, S64, S65, S79, S80</p> <p>T05, T09-09, T10, T19, T24, T32, T35, T41</p>	
<p>1 August Saturday</p>	<p>09.00 – 11.00 S06, S12, S16, S17, S19, S23, S32, S38, S45, S57, S64, S67, S89</p> <p>T08-01, T09-03, T09-10, T09-13, T10, T17, T21</p> <p><i>11.00 – 11.30 Coffee Break</i></p> <p>11.30 – 13.30 S12, S16, S17, S19, S23, S24, S36, S38, S44, S45, S63, S67, S89</p> <p>T08-01, T09-03, T09-13, T11, T14, T17, T21, T35</p>	<p>15.00 – 17.00 S16, S17, S19, S24, S26, S27, S36, S38, S44, S45, S60, S63, S89</p> <p>T08-01, T09-03, T11, T14, T17, T18, T21, T35, T40</p> <p>IUHPS/DHST General Assembly II</p> <p><i>17.00 – 17.30 Coffee Break</i></p> <p>17.30 – 19.30 IUHPS/DHST General Assembly</p> <p>S16, S17, S24, S26, S27, S36, S45, S60, S95</p> <p>T08-01, T08-06, T09-08, T09-11, T11, T13, T17, T18, T21, T27, T35</p>	<p>20.00 – 22.00 Congress Dinner <i>(optional)</i></p>
<p>2 August Sunday</p>	<p><i>09.30 – 10.00 Coffee Break</i></p> <p>10.00 – 12.00 Plenary Lectures</p> <p>12.00 – 12.30 Closing Ceremony</p>		

Plenary Sessions

Opening Ceremony

Tuesday, 28 July, 08.30 – 09.00, Room: A2

Chair: Péter Szegedi

Plenary Lectures

Tuesday, 28 July, 09.00 – 11.00, Room: A2

Chair: Ronald Numbers

Darwin's Sacred Cause

James Moore

Chair: Éva Vámos

The Combersome Material Heritage of Astronomy

Paolo Brenni

Chair: Karl Hall

From Hungary to the World: Martians of Science

István Hargittai

Friday, 31 July, 09.00 – 11.00, Room: A2

Chair: Eberhard Heinrich Knobloch

Islam and Modern Science

Ekmeleddin Ihsanoglu

Scientists in Exile – A Phenomenon in Totalitarian Regimes. The Czechoslovak Case

Soňa Štrbáňová, Antonín Kostlán

Technology Transfer in Early Modern Europe

Robert Halleux

Sunday, 2 August, 10.00 – 12.00, Room: A2

Chair: Norbert Kroó

Antikythera Mechanism: Its meaning for Greek Astronomy

Alexander Jones

Chair: Éva Vámos

Women in Science in the US

Margaret Rossiter

Women in Science in Europe: From Sof'ja Kowalewskaja to Dorothy Hodgkin

Annette B. Vogt

Closing Ceremony

Sunday, 2 August, 12.00 – 12.30, Room: A2

List of Symposia

no.	title	room	page
S01	Ancient and Medieval Astronomy with Special Emphasis on its Socio-cultural Context	B2	17
S03	Status in Mathematics: In Particular the Role of Applications in the First World War	A16, D1	18
S04	Mathematical Analysis from the Eighteenth to the Nineteenth Centuries	A8	19
S06	Transmission and Transformation of Mathematics and Mathematical Instruments in their Social Contexts, East and West	C3	20
S07	The Nature and Aims of Prediction in Ancient Science	A12	20
S08	Ideas and Instruments in the Development of Physics and their Use in Science Education	A7	21
S09	Islamic Science in Context: Texts, Instruments, Locales, and Institutions "in Memory of Professor Edward S. Kennedy"	C5	22
S12	Ideas and Instruments in the Social Context in the Ottoman Empire and the National States	C1	23
S13	Darwin Outside Europe: Ideas of Evolution in Comparative and Global Perspective	C1	24
S14	The Commerce of Science: Exchanging Objects, Instruments and Ideas in the Early Modern World	A15	25
S15	Chemistry in the Aftermath of World Wars	A13	25
S16	Mathematics in the Austrian-Hungarian Empire	C4	26
S17	Mathematical Discoveries and Demonstrations: East and West	A1	27
S18	History of Science and the New Media: Resources for Connecting the Global Community of Scholars	A4	29
S19	Physics and Cold War	A14	29
S21	Questions of Reflexivity: The International Circulation of Knowledge and Techniques	A15	30
S22	Learning, Producing and Using Medical Knowledge in Colonial Settings	A15	31
S23	A Change in Empires: European and North American Influences in Latin America's Scientific World in the Nineteenth and Twentieth Centuries	A8	32
S24	Global Visions? The Telescope between Competition and Collaboration	A9	32
S25	Science as a Matter of Identity and Modernity in Latin America: 'Positivism' and 'Positivisms' in the Late XIX and Early XX Centuries	A11	33
S26	Interactions between Mathematics and the Natural Sciences: Scientific Realities and Social Representations (1750-1950)	A16	34
S27	Spectroscopy: Science and Society	A8	35
S28	Visual Languages (and Representations) of the Sky: Frameworks and Focal Points in Social Context	A5	35
S29	Perspectives on the Rise of Climate Science	A5	36

S31	Les Ingénieurs au Service des Princes et des Etats: Un Regard sur la Mobilité Professionnelle en Europe, XVe-XIXe Siècle	C5	36
S32	From Natural History to Biology, when Life Sciences were Looking for an Object	A5	38
S33	How Instruments Change Hands	A15	38
S34	Cold War Social Science: Transformations in Politics, Patronage, Disciplines, and Democratic Ideology	C4	39
S35	History of Numerical Tables - The Second Meeting on History of Exact Sciences along the Silk Road	B2	40
S36	Introduction of Modern Mathematics in Iberoamerica	A4	42
S37	Science, Politics, and Development in the 20th Century	C2	42
S38	Marxism and 20th Century Natural Science	A15	44
S39	Early Modern Conversations between Science and the World's Religions	A8	45
S40	Visual Representations in Science and Pseudo-Science in Pre-Modern and Non-Western Cultures	A14	45
S41	Ideas and Instruments in the Iberian World in Early Modern Times (15th to 17th Century)	A4	46
S42	The Emergence of the Periodical Form (17th-18th Centuries) as an Instrument of Scientific Change	B3	47
S43	Science, Space, and Claims to European Domination – The Dynamics of Knowledge from the Renaissance through the Enlightenment	B2	48
S44	The Transmission of Modern Scientific Knowledge from the West to China	A5	49
S45	The Antikythera Mechanism and its Place in the History of Science, Technology and Ideas	A1, B2	49
S46	National Funding of Biomedical Research	A3	51
S47	Letters at War – Scientific Controversies in the Correspondences of the 17th and 18th Century	A13	52
S48	Networks of Instrumentation in the Neurosciences	A10	53
S49	Mediators of Sciences. Women Translators of Scientific Texts 1600-1850 – Mediatrices de Sciences. Femme Traductrices de Textes Scientifiques 1600-1850	A3	54
S50	Plants as Ideas and Instruments: A Symposium in Memory of Philip J. Pauly	A6	54
S51	For Better or for Worse? Collaborative Couples in the Sciences	A3	55
S52	Formation of Experimentation in Plant Sciences from 18th to 19th Centuries	A15	56
S53	Communicating Science in 20th Century Europe: Comparative Perspectives	A14	56
S54	Sources of East Asian History of Science, Technology, and Medicine	B3	57
S56	Communities and Communication in East Asian Sciences	D1	58
S57	Meanings of "Science" in Twentieth and Twenty-First Century East Asia	A4	59
S58	Iron Curtains and Immaterial Instruments – The Circulation of Software and Computer Science in Cold War Europe	A10	60

S59	Instruments for Modifying and Enhancing Oneself and their Social Impact: The Case of Amphetamines and Some of their Derivatives	A3	61
S60	Colonizing Drugs – Constructing the Other in the Mirror of (Precarious) Substances	A7	61
S63	Entanglements of Instruments and Media in Investigating Organic Worlds	A13	62
S64	Working with Pages and Texts	A3	63
S65	Diverse Cultural Practices in 20th Century Nuclear Physics	A9	63
S66	Framing the Outer World in the Biological and Human Sciences: A Comparative Historical Perspective	A4	64
S67	Uses of Cultural Manifolds in Research	A7	65
S69	The Social History of Military Technology	B3	65
S70	'Spacing Earth History': Geological and Paleontological Sciences in Cultural Contexts from 17th to 20th Centuries	A16	67
S71	Instrumentalizing Social Practice – Socializing Instrumental Practice	A9	68
S72	60 Years of Cybernetics and Information Theory – Ideas, Artefacts and Instruments	A9	68
S73	Ideas of Technology Across Time and Space: Changing Concepts and Ideologies	A9	69
S74	Technology in the Interaction with Society and the Environment	A9	69
S75	Playing with Technology	A9	70
S76	Politics, Technology and Infrastructure	A9	70
S77	The Impact of Ideas and Ideologies on Science and Technical Innovations	A9	71
S79	Special Topics	A15	71
S80	Practices, Views, and Networks in 19th and 20th Century Mathematics	A16	71
S82	Visual Cognition in the History of Science	C1	72
S83	Revisiting Joseph Nedham's 'Rivers and the Sea' Metaphor: The Construction of Modern Science and Technology in a Global Context, 17th-19th Centuries	A7	73
S87	The Reception of Darwinism at the Subnational Level: Cities	A5	73
S88	Comparative Reception of the Synthetic Theory of Evolution in the Soviet Union, Eastern and Central Europe	A5	74
S89	The Role of Rail Transport in Development of the Infrastructure in St-Petersburg (Russia) and Kiev (Ukraine) and their Interference in XIX – first half of XX Centuries	A10	74
S91	Biography as a Genre in Different National Traditions of Writing about Science and Scientists	A13	75
S93	History of Prospective Technology Studies	C3	76
S94	Brief History of Characterisation of Engineering Materials and Structures	C5	77
S95	History of Travel, Travel Medicine and Traveler's Medical Kits	A14	78
S96	Seeing and Measuring, Constructing and Judging: Instruments in the History of the Earthsciences	A16	78

List of Regular Sessions

no.	title	room	page
T02	Classical and Oriental Antiquity	C1	81
T03	Arabic and Islamic World	C1	81
T04	South Asia and India	A11	83
T05	East Asia	C5	84
T07	The Middle Ages (Western and Byzantine) and Renaissance	A8	85
T08-01	Mathematics and Mechanics in the Classical Period (1543-1800)	C5	86
T08-02	Physics and Astronomy in the Classical Period (1543-1800)	A11	87
T08-05	Biological and Medical Sciences in the Classical Period (1543-1800)	A10	88
T08-06	Technology and Engineering in the Classical Period (1543-1800)	A6	89
T09-01	Mathematics in the Contemporary Period (1800-)	A10	89
T09-02	Physics and Astronomy in the Contemporary Period (1800-)	A12	90
T09-03	Earth Sciences in the Contemporary Period (1800-)	A11	92
T09-04	Chemistry in the Contemporary Period (1800-)	B2	93
T09-05	Biological Sciences in the Contemporary Period (1800-)	A12	94
T09-06	Medicine in the Contemporary Period (1800-)	A1	95
T09-07	Technology in the Contemporary Period (1800-)	A6	97
T09-08	Engineering in the Contemporary Period (1800-)	A13	97
T09-09	Space Exploration and Research in the Contemporary Period (1800-)	C2	98
T09-10	Computing Sciences and the Internet in the Contemporary Period (1800-)	A9	98
T09-11	Geography in the Contemporary Period (1800-)	A11	98
T09-12	Social Sciences in the Contemporary Period (1800-)	C3	99
T09-13	Natural History in the Contemporary Period (1800-)	A16	99
T09-14	Environmental Studies in the Contemporary Period (1800-)	A6	100
T10	International Scientific Exchange	A6	100
T11	Scientific and Technical Museums	A3	101
T12	The Formation of Scientific Languages	A2	102
T13	The Evolution of Teaching and Public Involvement	A10	102
T14	Scientific Institutions - Learned Societies	A6	103
T15	Art and Science	A14	103
T16	Science and Society	A1	104
T17	Science and Culture	B3	106
T18	Trans-cultural Diffusion of Science	A12	107
T19	Technology Transfer	C4	108
T20	Gender in Science and Technology	A3	108

T21	Science and Political Context	C2	109
T22	Methodology and Sources for the History of Science and Technology	A6	111
T23	Science and Philosophy	C2	112
T24	Science and Military Affairs	A7	113
T25	Modernization and Development	A4	113
T26	Technology and Society	A2	114
T27	Politics of Technology	A15	116
T28	Approaches to History of Science	A7	116
T29	Darwin 1809-1859-2009	A7	117
T30	Galileo 1609-2009	A13	117
T31	History of Science in Education	C3	118
T32	Science in Social Context	A11	119
T35	Scientific Instruments	A2	120
T36	Studies in the History of Metrology	A8	122
T37	Controversies and Methodology in the History of Science	A5	123
T38	Scientific Controversies	C4	124
T39	History of Cognitive Science	C4	124
T40	Pioneering Ideas and Methods in the History of Earth Sciences	C1	125
T41	Some Methodological Aspects of History of Science	A13	126

Detailed Program of Symposia

S01 Ancient and Medieval Astronomy with Special Emphasis on its Socio-cultural Context

Organisers: S.M. Razaullah Ansari, Julio Samsó, Anne Tihon

Room: B2

Session I.: Ptolemy, his Writings, and their Transmission: Status of Present Research

Wednesday, 29 July, 15.00 – 17.00

Chair: Alexander R. Jones

Babylonian and Greek Antecedents of Ptolemy's Tables

Alexander R. Jones

Ptolemy and his Time: An Unedited Astronomical Papyrus

Anne Tihon

Introducing the Edition of the Handy Tables of Ptolemy

Raymond Mercier

Ibn al-Raqqam's al-Zij al-Mustawfi

Julio Samsó

Wednesday, 29 July, 17.30 – 19.30

Chair: Julio Samsó

Ptolemaism in al-Andalus: Jābir b. Aflah and the Evolution of the Term Hay'a

José Bellver

Tasyir in the Islamic West: Ibn Abi-l-rijal and Alfonso X

Montse Díaz-Fajardo

Jagannātha's Samrāt-siddhānta: A Translation of Almagest into Sanskrit

Ramasubramanian K. Sharma

The Indian Scholar Khayrullah Muhandis and His Persian Translation of Al-Tusi Recension of Almagest

S.M. Razaullah Ansari

Session II.: Contextual Oriental Studies

Thursday, 30 July, 15.00 – 17.00

Chair: Raymond Mercier

Buddhist Astronomy in its Cultural Context

Michio Yano

Patronage of Astronomy and Astrology in Post-classical Islamic Societies

Sonja Brentjes

Knowledge Secrecy and the Chinese Assimilation of Islamic Astronomy in the 14th Century

Yunli Shi

The Impact of the Telescope on Astronomy and Society in China
Xiaochun Sun

Thursday, 30 July, 17.30 – 19.30

Chair: Anne Tihon

Yavana-yantra to Yantra-râja
Sreeramula Rajeswara Sarma

Astronomy Part of the Kerala Work, Yuktibhasa (circa 1530 CE)
Sriram Subrahmanya Myyasandra

A Survey of Persian Zijes in Extant in Iran with Special Stress on their Use in Medieval Iranian Society
Farid Ghassemlou, Fariba Sabet

Final Remarks by the Chair of Organizing Committee
S.M. Razaullah Ansari

S03 Status in Mathematics: In Particular the Role of Applications in the First World War

Organisers: Jeremy Gray, Reinhard Siegmund-Schultze

Room: A16 and D1 (on Friday)

Thursday, 30 July, 15.00 – 17.00

Chair: Michael Eckert

The Rise of Complex Analysis in France and Germany
Jeremy J. Gray

Cauchy's and Weierstrass's 'Schools' on Complex Function Theory: A Comparison
Umberto Bottazzini

Function Theory for War: Ballistics and Fluid Mechanics in France, 1915-1930
David Aubin

The British Use of Mathematics in the First World War
June E. Barrow-Green

Thursday, 30 July, 17.30 – 18.30

Chair: June Barrow-Green

Developing a Theory of Ballistics from Experimentation and Mathematics: Oswald Veblen, Forest Ray Moulton, and the Aberdeen Proving Ground Project
Deborah Kent

The Rise of Exterior Ballistics in America, 1880-1929
Alan Gluchoff

Friday, 31 July, 11.30 – 13.30

Chair: Deborah Kent

Mathematics in a Dead End: Arnold Sommerfeld and the Turbulence Problem of the Early 20th Century
Michael Eckert

Richard von Mises: A Pioneer of Practical and Theoretical Aerodynamics

Reinhard Siegmund-Schultze

Aviation and Aerodynamics Alongside Mathematics: The Case of the University of Leipzig

Karl-Heinz Schlotte

S04 Mathematical Analysis from the Eighteenth to the Nineteenth Centuries

Organisers: Craig Fraser, Michiyo Nakane

Room: A8

Tuesday, 28 July, 11.30 – 13.30

Chair: Michiyo Nakane

Elaboration of Euler's Ideas on Series in the Early 19th Century

Hans Niels Jahnke

Euler and Functions of a Complex Variable

Craig G. Fraser

Two Ways of Understanding the Nature of Transcendental Functions in Mathematical Analysis

Carlos Alvarez

From Lagrange to Frege: Is a Function an Expression?

Marco Panza

Tuesday, 28 July, 15.00 – 17.00

Chair: Craig Fraser

Da Cunha, Stockler and Mathematical Analysis in Portugal in the Period 1770-1820

Luis R. Saraiva

Le Statut de l'Analyse Mathématique : de l'Encyclopédie au Cours de l'Ecole Polytechnique

Christian Gilain

Numbers, Limits, and Continuity in Gauss

Giovanni Ferraro

"Throwing Some Light on the Vast Darkness that is Analysis": Niels Henrik Abel's Contributions to the Reorientation of Analysis in the 1820s

Henrik Kragh Sørensen

Tuesday, 28 July, 17.30 – 19.30

Chair: Hans Niels Jahnke

What Makes Mathematical Analysis Rigorous? Counterexamples and Pathological Functions

Michiyo Nakane

The Place of Analysis in 19th Century British Mathematics

Adrian Rice

Mittag-Leffler and Weierstrassian Analysis

Laura E. Turner

Rigour vs. Intuition: Teaching and Research in Analysis in Turin in the Second Half of the Nineteenth Century

Erika Luciano

S06 Transmission and Transformation of Mathematics and Mathematical Instruments in their Social Contexts, East and West

Organisers: Joseph W. Dauben, Liu Dun

Room: C3

Saturday, 1 August, 09.00 – 11.00

Chair: Joseph W. Dauben

Qin Jiushao's Divining Method and in which the Mathematical Theory Contained
Gang Hou

The Introduction of Napier's Rods in China

Jose A. Cervera

Karel Slaviček and Yan Jiale Method

Dun Liu

On the History of a Compass

Galina A. Zverkina

Saturday, 1 August, 11.30 – 13.30

Chair: Dun Liu

Circles and Squares, Cubes and Spheres, East and West

Joseph W. Dauben

Leibniz's View of the I Ching

Mary Sol de Mora Charles

The Calculating Program of the Lunar Theory in Yuzhi Lixiang Kaocheng (1725)

Dalong Lu

"Wasan" Mathematicians, Technocrats and Samurai during the Edo Period in Japan – Seki Takakazu's Residence and the Social Status of Mathematicians

Shigeru Jochi

Trigonometric Tables, Their Utility, and Making in

Jiang-Ping Jeff Chen

S07 The Nature and Aims of Prediction in Ancient Science

Organiser: Francesca Rochberg

Room: A12

Friday, 31 July, 17.30 – 19.30

Chair: Francesca Rochberg

Prediction from and in the Sky in Babylonia

Hermann Hunger

“Inference from Signs and Prediction”

Francesca Rochberg

The Earliest Scientific Predictions

John P. Britton

Babylonian Period Relations

Teije de Jong

Mathematical Models or Observational Aids? Shadow Length Schemes in Babylonian Astronomy

John M. Steele

S08 Ideas and Instruments in the Development of Physics and their Use in Science Education

Organisers: Art Stinner, Jürgen Teichmann, Peter Heering

Room: A7

Session I: From Mechanics to Electromagnetism

Tuesday, 28 July, 15.00 – 17.00

Chair: László Kovács

Atwood's Machine: A Historical Case Study to Complement and Enrich Contemporary Methods of Teaching Newton's Laws of Motion.

Arthur Stinner

The Hero and the Dragon – Fraunhofer and the Dark Lines of the Sun's Spectrum

Jürgen Teichmann

The Induction Coil and the Electromagnetic Waves

Sándor Jeszenszky

Joule's Electromagnetic Rotor and Paddle Wheel Apparatus

Giorgio Dragoni, Martina Lodi

Session II: From Electromagnetic Waves to Einstein

Tuesday, 28 July, 17.30 – 19.30

Chair: Jürgen Teichmann

The Changing Meanings of Precision – from Coulomb to Gauss and Weber

Susanne Heinicke, Peter Heering

The Eötvös Apparatus: The Equivalence of Internal and Gravitational Mass

László Kovács

The Experimental Confirmation of Einstein's 'Heuristic' to Explain the Photoelectric Effect: Going Beyond the Textbook Presentation

Mansoor Niaz

General discussion and closing remarks

Art Stinner, Jürgen Teichmann

S09 Islamic Science in Context: Texts, Instruments, Locales, and Institutions “in Memory of Professor Edward S. Kennedy”

Organisers: Jamil Ragep, Mercè Comes Maymó

Room: C5

Session I.: Practical Astronomy and Instrumentation: Use and Wider Significance

Tuesday, 28 July, 11.30 – 13.30

Chair: Mercè Comes Maymó

Trigonometric Instruments in Medieval Islam. New Perspectives and Possibilities

Emilia Calvo

Medieval Arabic Astronomical Instruments with Astrological Functions

Josep Casulleras

Exposing the Forgery of an Astronomical Instrument: An Alleged Moroccan Astrolabe Dated 1845

Ingrid Hehmeyer

The Simple Version of the Sarrājiyya Instrument (14C): Textual and Technical Remarks

Roser Puig

Mathematical Astrology in Astronomical Handbooks

Benno van Dalen

Session II.: The Multifarious Contexts of Islamic Science

Tuesday, 28 July, 15.00 – 17.00

Chair: Mercè Comes Maymó

Bīmāristān al-Manṣūrī: State and Medical Practice in Mamluk Egypt (1285-1304)

Ahmed Ragab

The Boundaries of Trigonometry: Al-Samaw'al and the 480-Degree Circle

Glen R. Van Brummelen

Environmental Studies about Cities in Medieval Islam

Lutfallah Gari

The Sultan and the Stars: The Kitāb al-Tabsira fi ilm al-nujum of al-Ashraf Umar

Petra G. Schmidl

Several Remarks on the “Ashkāl al-Ta’sīs” by al-Samarqandī and Commentaries on it by al-Rūmī

Irina Lyuter

Session III.: Philosophical and Theological Contexts of Islamic Science

Tuesday, 28 July, 17.30 – 19.30

Chair: Mercè Comes Maymó

“Stealing the Water” and Commenting on the Void. Philosophical and Technological Aspects of the Greek and Arabic Perceptions of the Clepsydra

Constantin Canavas

A Hidden School: The Scientists-Philosophers of the 12th Century in al-Andalus
Miquel Forcada

Astrology in Early Kalām and Tafsīr
Robert G. Morrison

Session IV.: Geographical Knowledge and Nautical Application
Wednesday, 29 July, 09.00 – 11.00

Chair: Mercè Comes Maymó

Ibn Fadlallah on the Nautical Winds
Mónica Herrera-Casais, Mohsen Zakeri

al-Mursī's Nautical Chart in the Mediterranean Context
M. Mercè Comes

The Qibla, From the Sky to the Sea
Monica Rius

Le Géographe a l'Idrisi dans l'Historiographie Espagnole Pendant les XVIIIe et XIXe Siècles
Juan Martos Quesada

S12 Ideas and Instruments in the Social Context in the Ottoman Empire and the National States

Organisers: Ekmeleddin Ihsanoglu, Efthymios Nicolaidis, Tuncay Zorlu
Room: C1

Friday, 31 July, 15.00 – 17.00

Chair: Ekmeleddin Ihsanoglu

Evolution, Functioning and Capacity of the Mediterranean Windmills
Atilla Bir, Mustafa Kaçar

The Ottoman Royal Cannon Foundry: "Tophane-I Amire"
Salim Ayduz

Shemseddin Sami's Treatise of Astronomy, 'Gok' (Sky): An Effort in the Way of Formation of Turkish Scientific Language
Sevtap Kadioglu

An Analysis of Qushjī's Astronomical Textbooks
Tofiq Heidarzadeh

Friday, 31 July, 17.30 – 19.30

Chair: Tuncay Zorlu

Engineering Periodicals in the Ottoman Turkish
Cuneyd Okay, Tuncay Zorlu

Ottoman Nautical Terminology as Attested in the 18th Century Sources
Tuncay Zorlu

Locks and Keys: Their Story From Past to Present
Semra Saracoglu, Bulent Karakas

Books on Darwin and Darwinism in the Ottoman Empire

Cemil Ozan Ceyhan

Saturday, 1 August, 09.00 – 11.00

Chair: Constantine Skordoulis

The Point and Importance of Works of the Nasiruddin Tusi in the Ottoman World

Nihal Ozdemir

Ottoman Phd Dissertations of Chemistry Completed in European Universities

Emre Dolen

First instruments of the National Observatory of Athens. When, From Where, Why and How.

Panagiotis G. Lazos

The Reception of Ernst Haeckel's Ideas in Greece

Constantine D. Skordoulis, Kyriakos Kyriakou

Saturday, 1 August, 11.30 – 13.30

Chair: Mustafa Kaçar

The Interaction Between Mathematics and Greek Trade During the Period of the Ottoman Occupation

Maria Terdimou

The Foundation and Early Phase of the Imperial Observatory of Constantinople

Christophe Benoit

Le Rôle Social et Politique des Ingénieurs du Corps du Génie dans le Jeune État Grec: Entre l'Europe et les Structures Traditionnelles

Fotini Assimacopoulou, Konstantinos Chatzis

S13 Darwin Outside Europe: Ideas of Evolution in Comparative and Global Perspective

Organisers: Cemil Aydin, Marwa Elshakry

Room: C1

Wednesday, 29 July, 15.00 – 17.00

Chair: Olga Restrepo Forero

Darwinism After 1945: The State and Fate of 'Evolution' in Early Cold War Culture

Christian Geulen

Moving Darwin / Tales of the Travels of Darwinism

Olga Restrepo Forero, Malcolm Ashmore

Yādollāh Sahābī's Defence of the Theory of Evolution

Martin Riexinger

Darwin in Non-Western Nationalist Thought

Cemil Aydin

S14 The Commerce of Science: Exchanging Objects, Instruments and Ideas in the Early Modern World

Organisers: Daniel Margocsy, Mario Biagioli

Room: A15

Session I.: Owning and Selling Instruments

Wednesday, 29 July, 15.00 – 17.00

Chair: Harold Cook

Georg Hartmann and the Beginnings of the Printed Scientific Instruments Trade
Suzanne Karr Schmidt

Trading Up: Instruments and Architecture in Early-Modern England
Stephen A. Johnston

Session II.: The Circuits of Natural History

The Price of Mobility: Transporting Exotic Animals in Early Modern Europe
Daniel Margocsy

Trading Places: Domestic Worlds and Materials of Scientific Exchange in Early Enlightenment Danzig
Alix Cooper

Wednesday, 29 July, 17.30 – 19.30

Chair: Stephen Johnston

Final Discussion

Session III.: Science and the State

Commerce and Science in the Dutch Republic
Harold J. Cook

A Sampling History of Autodidacticism
Avner Ben-Zaken

Scientific Practice as Political Economy in the English Atlantic Empire, 1650-1688
Matthew Underwood

S15 Chemistry in the Aftermath of World Wars

Organisers: Yasu Furukawa, Ernst Homburg, Jeffrey Johnson, Gábor Palló

Room: A13

Session I.: Chemistry and Chemical Industry in the Aftermath of World War I.

Wednesday, 29 July, 11.30 – 13.30

Chair: Yasu Furukawa

The Impact of World War I upon Japanese chemistry
Yoshiyuki Kikuchi

French Chemists and the Reorganization of Chemistry in the International Community after the First World War
Danielle M.E. Fauque

Soviet Chemistry after the Civil War

Yakov M. Rabkin

Crisis, Change and Creativity in Science and Technology (Keynote address)

Jeffrey A. Johnson

**Session II.: Chemistry and Chemical Industry in the Aftermath of World War II.
Wednesday, 29 July, 15.00 – 17.00**

Chair: Ernst Homburg

World War II, the Cold War, and British Women Chemists

Sally M. Horrocks

The Difficult Beginning of the German-Israeli Scientific Cooperation

Ute Deichmann

Chemistry at the University of Strasbourg in the Aftermath of World Wars I and II

Pierre Laszlo

Commentary

Carsten Reinhardt

**Session III.: Chemical Technology Transfer in the Aftermath of Two World Wars
Wednesday, 29 July, 17.30 – 19.30**

Chair: Gábor Palló

**Isolation & Innovation: German Chemicals and American Political Economy after
World War I**

Kathryn Steen

**Role of Prettre's Lyons Laboratory in the Postwar Development of Fischer-Tropsch
Synthetic Oil Technology in France.**

Baptiste Voillequin

**Postwar Transfer of Synthetic Rubber Technology Between Germany, Russia and the
USA**

Peter J.T. Morris

Commentary

Anthony S. Travis

S16 Mathematics in the Austrian-Hungarian Empire

Organisers: Christa Binder, Martina Becvarova

Room: C4

Saturday, 1 August, 09.00 – 11.00

Chair: Martina Becvarova

The Appointment Policy in the Austro-Hungarian Monarchy

Christa Binder

The Reception of Bolyai's Geometry in the Austrian-Hungarian Empire

Katalin Munkácsy

Greek Mathematical Publications in Vienna in the 18th-19th Centuries

Christine Phili

Saturday, 1 August, 11.30 – 13.30

Chair: Christina Phili

Franc Hočevar and His Scientific Work

Marko Razpet

Franc Hočevar - Textbooks Writer

Nada Razpet

Mathematical Education in the Province of Voivodina Within the Habsburg Monarchy

Aleksandar M. Nikolić

Wilhelm Matzka (1798–1891) and his Position in the Austro-Hungarian Mathematics

Michaela Chocholova

Saturday, 1 August, 15.00 – 17.00

Chair: Peter Schmitt

Karel Pelz an Outstanding Geometer of the 19th Century

Marta Pémová, Zita Sklenáriková

The Mathematics and its Professors at the Mining (and Forestry) Academy in Schemnitz

Miroslav Tibor Morovics

Czech Mathematicians and their Role in the Development of Mathematics in the Balkans

Martina Becvarova

Mathematics in Lwów Before the Famous Lwów Mathematical School

Stanislaw Domoradzki

Saturday, 1 August, 17.30 – 19.30

Chair: Christa Binder

“The Crisis of Intuition” – Austrian-Hungarian Contributions in the Quest of Defining the Mathematical Term “Dimension” from the 1850’s to the 1920’s

Bernhard Johann Karl Beham

Muslim Ideas and Instruments in the Mathematics and Astronomy of Austria-Hungary

Harald Gropp

S17 Mathematical Discoveries and Demonstrations: East and West

Organisers: Chikara Sasaki, Helène Bellosta, Ioannis Vandoulakis, Feng

Lisheng

Room: A1

Saturday, 1 August, 09.00 – 11.00

Chair: Chikara Sasaki

Two Archetypes of Mathematical Discoveries and Demonstrations: Ancient Greece and Ancient China

Chikara Sasaki

Early Greek Mathematics and Eleatic Philosophy: A Reappraisal of a Controversial Relation

Ioannis M. Vandoulakis

The Treatise on the Section of a Cone of Serenus of Antinoe and its Relation With the Book XII of Euclid's Elements

Konstantinos S. Nikolantonakis

Theory of Proof in the 10th Century: What Change? Why?

Hélène Bellosta

Saturday, 1 August, 11.30 – 13.30

Chair: Helène Bellosta

Epistemic Aspects of Algebraic Demonstration: East and West

Albrecht Heeffer

About the Reading of Diophantus Between the 16th and 17th Century

Paolo Fregiaglia

Les Mathématiques de Newton Après les Principia

Massimo Galuzzi

Leibniz's Parisian Studies on Infinitesimal Mathematics

Eberhard Heinrich Knobloch

Saturday, 1 August, 15.00 – 17.00

Chair: Ioannis Vandoulakis

History of Demonstration as Vital Ingridient of Mathematics

Michael I. Monastyrsky

Pre-modern Japanese Mathematics, Wasan and Demonstration

Tatsuhiko Kobayashi

The Comparative Studies on the Discoveries and Demonstrations in the Eighteenth-century Mathematics in East and West

Nobuo Miura

Saturday, 1 August, 17.30 – 19.30

Chair: Feng Lisheng

Styles de Démonstration en Philosophie Naturelle: Galilée, Tartaglia, Borelli.

Enrico Giusti

Descartes and the "Impossible" Constructions with Ruler and Compass

Aldo Brigaglia

On the Seki Takakazu's Summation Formulae for of Powers of Natural Numbers and its Construct Method

Lisheng Feng

S18 History of Science and the New Media: Resources for Connecting the Global Community of Scholars

Organisers: Peter Harper, Stephen Weldon

Room: A4

Wednesday, 29 July, 09.00 – 11.00

Chair: Peter Harper

The Website @.Ampère and the History of Electricity

Christine Blondel

Physics Educational Instruments in New Media: Case Study of Capodistrian School

Stanislav J. Juznic

Managing the Dispersion of Sources on Science History: National Bibliography

Birute Railiene

Digital Humanities in the United Kingdom: Advancing Computation Methods in the Digital Humanities through the Arts-Humanities.net Project: <http://www.arts-humanities.net>

Craig Bellamy

Wednesday, 29 July, 11.30 – 13.30

Chair: Peter Harper

Digital Media at Centro Simao Mathias

Ana M. Alfonso-Goldfarb, Marcia H. M. Ferraz, Silvia I. Waisse de Priven

World History of Science Online: Citation, Standards and Web Services

Gavan J. McCarthy

The Cost of Free Access: Making the Isis Bibliography Available on the Open Internet

Stephen P. Weldon

S19 Physics and Cold War

Organisers: Christian Forstner, Leonardo Gariboldi

Room: A14

Saturday, 1 August, 09.00 – 11.00

Chair: Christian Forstner

The Nobel Prize and the Cold War

Robert Marc Friedman

The Haber Institute in Berlin During the Cold War

Dieter Hoffmann

Saturday, 1 August, 11.30 – 13.30

Chair: Falk Mueller

The Spy Who Came In From the Lab: A Cold War Tale Based on Real Physicists

Simone Turchetti

Between East and West? Austrian Neutrality, Cold War, and Nuclear Physics

Christian Forstner

Physics in Spain Under Franco

Néstor Herran, Xavier Roqué

When Latitude and/or Altitude Matters. International Collaborations in Cold-War Times Cosmic-Ray Physics

Leonardo Gariboldi

Saturday, 1 August, 15.00 – 17.00

Chair: Leonardo Gariboldi

The Double Track for Superconductivity During the Cold War

Georges Waysand

The Recommencement of Electron Microscopy After World War II in the Two German States

Falk Mueller

Interacting Fields—Quantum Field Theory and the Conceptual Borderlands Between Solid-State and Particle Physics During the Cold War

Christian Joas

Pictures Without Problems: The Reconstitution of an International Physics Community in the 1950s

Elvira Scheich

S21 Questions of Reflexivity: The International Circulation of Knowledge and Techniques

Organisers: A. Michael Osborne, Jahnavi Phalkey

Room: A15

Session I.: Scientific and Popular Medicine in the Portugese Empire

Tuesday, 28 July, 11.30 – 13.30

Chair: Mike Osborne

Teaching Medicine and Learning How to Cure: the Circulation of European and Indigenous Knowledge in 19th Century Portuguese Colonies

Cristiana Bastos

Climatology, Parasitology, and the Development of Tropical Medicine in 19th Century Brazil

Flavio Coelho Edler

The International Circulation of Medical Knowledge About Malaria

Monica Saavedra

Comments: audience and members of the research team for “Empires, Centers, and Provinces: the Circulation of Medical Knowledge in the Nineteenth Century,” Instituto de Ciencias Sociais, Fundação para a Ciência e Tecnologia, Lisbon, Portugal

Session II.: Medicine, Race and Governance

Tuesday, 28 July, 15.00 – 17.00

Chair: Mike Osborne

The Circulation of Medical Knowledge in Mexico, During and After the French Intervention, 1860s-80s

Paul Edison

From Race Crossing to Over Population: Scientific Discourses on the Population of Jamaica (1929-1945)

Jill Briggs

Construction of Medical Hegemony: An Exploration into Colonial Encounters in Anatomical Knowledge in India

Jayanta Bhattacharya

Session III.:South Asian Texts and Contexts

Tuesday, 28 July, 17.30 – 19.30

Chair: Jahnvi Phalkey

Worldly Visions: Science and Modernity in Colonial India

Prakash Kumar

Western Science in Late 19th-Early 20th Century Hindi-Language Print Media

Rajive Tiwari

Scientific Correspondence for the Global Diffusion of Theory: The Case of F. Mesnil's Laboratory of Tropical Zoology at the Institut Pasteur (First Third of the 20th Century)

Annick Opinel

S22 Learning, Producing and Using Medical Knowledge in Colonial Settings

Organisers: Cristiana Bastos, Renilda Barreto

Room: A15

Wednesday, 29 July, 09.00 – 11.00

Chair: Cristiana Bastos

Introduction, Research Agenda, and Theoretical Goals

Cristiana Bastos

Political Crisis, Exile, and the Circulation of Medical Concepts: M. J. Henriques de Paiva Between Portugal and Brazil (1800-1829)

Maria Renilda N. Barreto, Luiz Otavio Ferreira

Learning to Heal in the Santa Casa da Misericórdia's Hospital (Rio de Janeiro, First Half of the 19th Century)

Tânia S. Pimenta

Medical Knowledge Applied to the Education: The Mutual Teaching in Nineteenth Century

Tereza Cardoso

Brazil and Tropical Medicine from the 1880s to the Great War

Jaime L. Benchimol

Wednesday, 29 July, 11.30 – 13.30

Chair: Renilda Barreto

Folk Hydrotherapy and the Science of Medical Hydrology in Brazil and Portugal

Maria Manuel Quintela, Cristiana Bastos

Pharmacies, Industries, and Overseas: Cinchona and Quinine (18th-20th Centuries)

João Rui Pita

Lost White Men: Colonial Forensic RESEARCH and the 'Drechter and Bell' case (New Guinea, 1920s)

Ricardo Roque

From Hospitals to Bush Clinics: The Politization of Health Care in Portugal's African Colonies

Philip J. Havik

Rolling Bones or Probabilistic Softwares: Deterministic Chaos in Mozambican Healing and in Risk Analyses

Paulo Granjo

Final Commentary by Discussant

Saraiva Tiago

S23 A Change in Empires: European and North American Influences in Latin America's Scientific World in the Nineteenth and Twentieth Centuries

Organisers: Camilo Quintero, Shawn Mullet

Room: A8

Saturday, 1 August, 09.00 – 11.00

Chair: Shawn Mullet

Nation, Nature, and Naturalists: Exploring U.S.-Colombia Scientific Relations in the Early Twentieth Century

Camilo Quintero

The Rebuilding of German Influence in Latin America through Medical Science Between the World Wars

Magali Romero Sá

The Rockefeller Foundation and the Introduction of Genetics in Mexico

Ana Barahona

Building Brazilian Bridges: Gleb Wataghin and Physics at the University of Sao Paulo

Shawn Mullet

Saturday, 1 August, 11.30 – 13.30

Chair: Camilo Quintero

Continental Bridges: Globalization of Geological Cultures from a South American Perspective at the Turn of the 20th Century

Maria Margaret Lopes

S24 Global Visions? The Telescope between Competition and Collaboration

Organisers: Sven Dupré, Albert van Helden

Room: A9

Saturday, 1 August, 11.30 – 13.30

Chair: Sven Dupré

Introduction: The Telescope Between Competition and Collaboration

Sven Dupré

Galileo's Shopping List: an Overlooked Document About Early Telescope Making

Giorgio Strano

Johann Wiesel 's Telescopes and his Clientele

Inge Keil

Astronomical Sites in the Dutch Republic, or the Changing Use of the (Astronomical) Telescope in Institutional and Private Settings During the 17th and 18th Centuries

Huib J. Zuidervaat

The Art of Polishing: Practice and Prose in 18th-century England

Jim Bennett

Saturday, 1 August, 15.00 – 17.00

Chair: Sven Dupré

Networks of Telescope Makers and the Evolution of Skill: The Evidence From Observatory and Museum Collections

Gloria C. Clifton

Astronomy in the Field: Mason, Dixon and the Greenwich Observatory, 1763 - 1768

Nicky Reeves

Dollond or Fraunhofer: Instruments and Practices for Early Nineteenth Century Star Chart Observations

Klaus Staubermann

The Limits of the Universe and the Limits of the Telescope: A Controversy on Stellar Distances in the Nineteenth Century

Pedro M.P. Raposo

Saturday, 1 August, 17.30 – 19.30

Chair: Sven Dupré

Topography as Instrument: High-Altitude Telescope Observations and the Rocky Mountain Eclipse of 1878

Steve Ruskin

The Smithsonian Institution's Contribution to Global Networking in Astronomy

David H. DeVorkin, Teasel Muir-Harmony

The Making of Space Astronomy

Robert W. Smith

Commentary

Mario Biagioli

S25 Science as a Matter of Identity and Modernity in Latin America: 'Positivism' and 'Positivisms' in the Late XIX and Early XX Centuries

Organisers: Natalia Priego, Sonia Lozano

Room: A11

Wednesday, 29 July, 17.30 – 19.30

Chair: Sonia Lozano

Porfiriato, Pisciculture et Progrès

Minerva Contreras-Alvarado, Dr. Ismael Ledesma-Matos

The New Visions of Venezuela in the Late XX Century: The Contributions of the Positivists

Yajaira Freitas

Scientific Universalism and Controversies with a Positivist Perspective in Brazil

Bernardo J. Oliveira

Is There a Latin American Philosophy of Science? Notes Upon Late-19th and Early-20th Century Mexico

Natalia Priego

Le Début du Positivisme au Venezuela. Adolf Ernst et Rafael Villavicencio: de l'Histoire Naturelle à la Philosophie de l'Histoire 1863-1898

Juan J. Martin-Frechilla

S26 Interactions between Mathematics and the Natural Sciences: Scientific Realities and Social Representations (1750-1950)

Organisers: Christian Gilain, Tom Archibald

Room: A16

Saturday, 1 August, 15.00 – 17.00

Chair: Tom Archibald

Les Premiers Travaux de d'Alembert en Hydrodynamique (1745-1750) : Une Nouvelle Problématique

Gerard Grimberg

L'Hydrodynamique et le Calcul Intégral à Plusieurs Variables dans la Seconde Moitié du XVIIIe Siècle

Alexandre Guilbaud

Les Équations aux Dérivées Partielles chez D'Alembert, Euler et Lagrange: des Mathématiques Mixtes aux Mathématiques Pures

Guillaume Jouve

Choosing and Measuring Physical Parameters for Mathematically

Muriel Guedj, Arnaud Mayrargue

French Geodesy in 19th and 20th Centuries. Context, Actors and Mathematical Practices in the Field.

Martina Schiavon

Saturday, 1 August, 17.30 – 19.30

Chair: Christian Gilain

Henri Poincaré's Approach to Astronomy

Scott A. Walter

Integral Equations Between Theory and Application, 1900-1920

Thomas Archibald, Rossana Tazzioli

Different Views on Applied Mathematics in Germany in the 1920s

Birgit Bergmann

Group Theory and Quantum Mechanics: Van Der Waerden's Contribution

Martina R. Schneider

S27 Spectroscopy: Science and Society

Organisers: Peter Maria Schuster, George N. Vlahakis

Room: A8

Saturday, 1 August, 15.00 – 17.00

Chair: George N. Vlahakis

Spectroscopy in Ireland in the Late 19th Century

Denis Weaire, Se O'Connor

Spectroscopy in Greece. The Early Days

George Vlahakis

The Scientific Network of Robert W. Bunsen, Founder of Spectroscopy, in the Light of his Private Library

Rudolf W. Soukup

Saturday, 1 August, 17.30 – 19.30

Chair: Denis Weaire

Historical Development of the Spectroscopy of Planetary Atmospheres

Bruno P. Besser

Computer Simulations: A New Way to Approach Nature

Franjo Sokolic, Giovanni Ciccotti

Applying the Doppler Principle to the Amici Prisms – A Think-different in Astronomy Giving Birth to Astrophysics

Peter Maria Schuster

S28 Visual Languages (and Representations) of the Sky:

Frameworks and Focal Points in Social Context

Organisers: Cornelia Lüdecke, James Fleming

Room: A5

Wednesday, 29 July, 09.00 – 11.00

Chair: Cornelia Lüdecke

Socializing the Skies: British Skies in Popular Culture 1780-1880

Marilyn Gaull

La Niña, Stellar Portents, and the Extinction of Easter Island's Birdmen, 1862-1866

Gregory T. Cushman

Instructions for Cloud Observation at Meteorological Stations in Germany Before the International Year of Clouds 1896/97

Mathias Deutsch, Michael Börngen, Karl-Heinz Poertge

Seeing Icebergs in the Sky: G. I. Taylor's Newfoundland Voyage

Daniela K. Helbig

Wednesday, 29 July, 11.30 – 13.30

Chair: James Fleming

Visible Impressions from World War II - Reality or Artistic Interpretation?

Cornelia Lüdecke

A Hole in the Sky? A Visual History of Ozone Depletion

Sebastian V. Grevsmühl

/Cloud/... Blur

Thomas Mical

S29 Perspectives on the Rise of Climate Science

Organisers: Matthias Heymann and Robert Marc Friedman

Room: A5

Wednesday, 29 July, 15.00 – 17.00

Chair: Robert Marc Friedman

From Polar War and Cod Fishery to Global Climate Change

Maiken L. Holck

Nuclear Arms, Cold War, and the Rise of Climate Science

Matthias Dörries

The Project of MECCA

Nils R. Hundebøl, Matthias Heymann

Wednesday, 29 July, 17.30 – 19.30

Chair: Matthias Heymann

Modeling Climate Prosperity

Vladimir Jankovic

How Global Warming Stimulated Ocean Research in Germany

Walter Lenz

Climate and Clientelism in Brazil

Christina H.M. Barboza

S31 Les Ingénieurs au Service des Princes et des Etats: Un Regard sur la Mobilité Professionnelle en Europe, XVe-XIXe Siècle

Organisers: Ana Cardoso de Matos, Irina Gouzévitch, André Grelon

Room: C5

Session I: S'Expatrier pour se Former et s'Informier: Migration Entre la Formation et l'Action

Wednesday, 29 July, 15.00 – 17.00

Chair: Ana Cardoso de Matos

Les Ingénieurs pour le Risorgimento Italien: Une Contribution «Internationale» pour la Construction de la Nation

Renata de Lorenzo

L'État Libéral Portugais et la Formation à l'Étranger de Cadres Techniques Modernes (1851-1900)

Paulo Simões Rodrigues, Helena Souto

Trained in Europe to Serve the State: Preliminary Remarks on Ottoman Engineers of the 19th Century

Feza Günergun

Session II.: Pérégrinations et Expatriations: Parcours Classiques, Parcours d'Exception

Wednesday, 29 July, 17.30 – 19.30

Chair: Irina Gouzévitch

Aristocrates en Ecosse – Ingénieurs en Russie: la Famille Bruce au Service de la Couronne Russe, Fin XVIIe- Début XVIIIe Siècle

Irina Gouzévitch

Les Ingénieurs Français et Flamands et les Projets de Forteresses de l'Alentejo, Portugal, au XVIIe Siècle

Antónia Fialho Conde

Lamé et Clapeyron en Russie, 1820-1830

Margaret M. Bradley

Dzrewiecki (1844-1938): les Pérégrinations Européennes d'un Ingénieur Russo-Polonais

Claudine Fontanon

Between Europe and America. E. Terradas (1883-1950) and the New Engineering in Spain

Antoni Roca-Rosell

Session III.: Mise à Disposition des Compétences: le Travail des Experts dans les Pays Étrangers

Thursday, 30 July, 15.00 – 17.00

Chair: Irina Gouzévitch

Foreign Engineers in Spain and in the Ottoman Empire: A Comparative Study from a Long-Term Perspective (18th to Early 20th Century)

Darina Martykánová, Meltem Akbas

La Mission des Ponts et Chaussées en Grèce (1882-1886); un Corps National d'Ingénieurs pris dans des Rapports Économiques Internationaux

Anna Mahera

Sous le Signe de l'École des Ponts et Chaussées: João Evangelista de Abreu et les Chemins de Fer Portugais

Maria Paula Diogo

A Place for Foreign Specialists: French Agronomists and the Institutionalization of Agricultural Sciences in Brazil, 1870 – 1910

Graciela de Souza Oliver

Gaspard Monge et les Polytechniciens à Rome

Luigi Pepe

Les Ingénieurs Étrangers dans l'Industrie du Gaz et de l'Électricité au Portugal, 1850-1920

Ana Cardoso de Matos

Session IV.: La Remise en Question de la Mobilité Professionnelle: Crises et Nationalismes

Thursday, 30 July, 17.30 – 19.30

Chair: André Grelon

Les Ingénieurs de la Renaissance au Service du Grand Prince de Moscovie, ou les "Habits" Pour un État Unifié (Fin XVe - Début XVIe Siècles)

Dmitri Gouzevitch

Great Hydraulic Works of French Engineers During the Napoleonic Period in Italy
Maria Teresa Borgato

Otages de « l'Intérêt des Arts et des Fabriques » : les Mécaniciens Anglais en France au Début du XIXe Siècle
Christiane Demeulenaere-Douyere

Conclusion
Andre Grelon

S32 From Natural History to Biology, when Life Sciences were Looking for an Object

Organisers: Bernardino Fantini, Stéphane Tirard
Room: A5

Friday, 31 July, 17.30 – 19.30

Chair: Stéphane Tirard

La Biologie Végétale Durant la Deuxième Moitié du XIXe Siècle: de la Pratique au Laboratoire et Retour
Cristiana Oghinã-Pavie, Stéphane Tirard

Quelle Révolution Pasteurienne dans les Sciences du Vivant?
Gérard Jorland

La Naissance de la Zoologie en Belgique: Pierre-Joseph Van Beneden
Marie Claire S.Y. Van Dyck

La Réception du Transformisme dans les Milieux Catholiques à la Fin du XIXe Siècle
Olivier Perru

Saturday, 1 August, 09.00 – 11.00

Chair: Stéphane Tirard

La Question du Verdissement des Huitres: Observatoire Privilégié de la Transformation des Sciences de la Vie à la Fin du XIXe Siècle et au Début Du
Céline M.-L. Briée

Aux Origines d'une Science du Développement
Jean-Louis Fischer

S33 How Instruments Change Hands

Organisers: Sara J. Schechner, A. D. Morrison-Low
Room: A15

Thursday, 30 July, 15.00 – 17.00

Chair: Alison Morrison-Low

'Distinguished and Well-known to Princes and Lords': The Self-marketing of Early-modern Instrument-makers in Germany
Michael B. Korey

Symbiosis and Style: the Production, Sale and Purchase of Instruments in the Luxury Markets of Early Eighteenth Century London
Alexi S. Baker

Counterfeits, Copycats, and Knockoffs in the Branding and Selling of Scientific Instruments

Sara J. Schechner

Selling Surveying Instruments in America Before the Printed Trade Catalog

Richard Kremer

Thursday, 30 July, 17.30 – 19.30

Chair: Sara J. Schechner

The Gentle Art of Persuasion: Advertising Instruments During Britain's Industrial Revolution

Alison D. Morrison-Low

Selling by the Book: Scientific Trade Literature

Liba Taub, Joshua Nall

Mathematical Instruments Changing Hands at World's Fairs, 1851-1904

Peggy A. Kidwell

The Economics of Instruments: Prices in Europe Between 1800 and 1914

Paolo Brenni

S34 Cold War Social Science: Transformations in Politics, Patronage, Disciplines, and Democratic Ideology

Organisers: Mark Solovey, Hamilton Cravens

Room: C4

Session I.: Social Science, Social Movements, and Social Reform

Thursday, 30 July, 15.00 – 17.00

Chair: Nadine M. Weidman

The Strange Career of Neo-Evolutionist Anthropology in the United States

Howard Brick

The Crossroads of Race and Gender: Ashley Montagu and the Unity of Human Nature, 1950-1975

Nadine M. Weidman

Revolt Against The System: Radical Individualism and the American Social Sciences in the Age of the Cold War 1945-2000

Hamilton Cravens

Session II.: Disciplinary Transformations

Thursday, 30 July, 17.30 – 19.30

Chair: Joel Isaac

Cold War Modern? Shapes of Knowledge in Harvard's Department of Social Relations

Joel Isaac

Producing Reason

Hunter A. Heyck

The Birth of a Movement: Joy Paul Guilford and Creativity Research in American Psychology, 1950-70

Michael Trevor Bycroft

Session III.: Social Theory and Democratic Ideology

Friday, 31 July, 11.30 – 13.30

Chair: Jefferson D. Pooley

International Influences and Interpretations of Futures Studies

Kaya Tolon

Gemeinschaft After All: The Frontstage and Backstage of Small Group Research in Early Cold War Social Science

Jefferson D. Pooley

Somewhat Known but Not Known Well: Sociologist Harry Alpert's Travels in American Social Science

Mark Solovey

American Foundations and Socio-economic Research in Italy: A Long-term Analysis

Giuliana Gemelli

Session IV.: The Human Machine in Cold War Social Science

Friday, 31 July, 15.00 – 17.00

Chair: Edward Jones-Imhotep

Cold War Emotions: Mother Love and Human Nature in Post-War America

Marga Vicedo

Maintaining Humans

Edward Jones-Imhotep

The Most Advanced of All Social Sciences?: Linguistics in Cold War America

Janet Martin-Nielsen

S35 History of Numerical Tables – The Second Meeting on History of Exact Sciences along the Silk Road

Organisers: Dominique Tournès, Anjing Qu

Room: B2

Session I.: Tables in Antiquity

Tuesday, 28 July, 11.30 – 13.30

Chair: Zhigang Ji

From Square Tables to Calculation of Surfaces in Mesopotamia

Christine Proust

Fractional Tables and Water Clocks in Egypt

Micah T. Ross

From Lists to a Table to Manage Grains: The Evidence from the Oldest Extant Chinese Mathematical Books

Karine C. Chemla, Biao Ma

Session II.: Tables and Astronomy

Tuesday, 28 July, 15.00 – 17.00

Chair: Alexander Jones

The Function of Numerical Tables in the Mathematical Structure of Ptolemy's /Almagest/

Nathan Sidoli

The Numerical Model of Chinese Planetary Theory

Anjing Qu

The Precision of the Planetary Calculation in the Song Dynasty

Quan Tang

Mercure et le Second Équatoire de Jean de Lignières

Matthieu Husson

Session III.: Tables and Arithmetic

Tuesday, 28 July, 17.30 – 19.30

Chair: Karine C. Chemla

Comments on the Numerical Tables and Algorithms in Fibonacci's Liber Abaci

Zhigang Ji

Cardano's Rule of Proportional Position in Artis Magnae

Jiwei Zhao

Earliest Factor Tables

Maarten Bullynck

Une Étude Empirique de Georg Cantor

Anne-Marie Decaillot

Session IV.: Tables and Engineering in the 19th Century

Wednesday, 29 July, 09.00 – 11.00

Chair: David Aubin

Euler-Otto's Ballistic Tables

Dominique Tournes

Instruments Versus Tables dans le Calcul des Déblais et Remblais dans la France des Années 1830-1860

Konstantinos Chatzis

Mathematics, Analysis, and Mechanisation in Great-Britain (1834-1934)

Marie-José J. Durand-Richard

Session V.: Tables and Engineering in the 20th Century

Wednesday, 29 July, 11.30 – 13.30

Chair: Dominique Tournes

The Relationship between Numerical and Graphical Methods in the First Half of the 20th Century

Renate A. Tobies

The Design of Numerical Tables for Statistical Quality Control in Industry (1920-1950)

Denis Bayart

**"Why Might a Mathematician Want to Add Pulse Circuitry to Pencil and Paper?"
Mathematical Tables in the Era of Digital Computing.**

Liesbeth De Mol

S36 Introduction of Modern Mathematics in Iberoamerica

Organisers: Alejandro R. Garciadiego, Sergio Nobre, Clara H. Sánchez

Room: A4

Saturday, 1 August, 11.30 – 13.30

Chair: Sergio R. Nobre

The Translation into Spanish of Kurt Grelling's Theory of Sets

Alejandro Garciadiego

Introduction of Set Theory in Colombia

Clara Helena Sánchez Botero, Víctor Albis

Logic and Set Theory in Primary and Secondary Education in Spain

Elena Ausejo

Hilbert's "Grundlagen der Geometrie" Translated into Spanish: A Case of a Famous Mathematical Text and its Contexts

Leo Corry

Saturday, 1 August, 15.00 – 17.00

Chair: Alejandro Garciadiego

Mischa Cotlar's First Studies on Measure and Integration Theory (1939-1944)

Luis C. Arboleda, Carlos D. Galles

The Impact of Antonio Monteiro on the Establishment of Algebraic Logic in Latin America

Eduardo Ortiz

Sur Une Contribution de Pi Calleja au Problème d'Induction et Récursivité dans les Axiomes de Peano pour les Nombres Naturels

Luis Carlos Arboleda

A Brazilian Genealogy of the Mathematics from Luigi Fantappiè

Plínio Zornoff Táboas

Saturday, 1 August, 17.30 – 19.30

Chair: Clara Helena Sánchez Botero

The Birth of the Research in Mathematics Inside the State of São Paulo - Brazil

Sergio R. Nobre

Intuition, Formalism, and Purity in Brazilian Mathematics

Rogério Monteiro de Siqueira

On the Development of Paraconsistent Logic and the Brazilian School of Logic

Itala M.L. D'Ottaviano

Some Historical Considerations on the Paraconsistent Logic in Brazil

Carlos Roberto Moraes

S37 Science, Politics, and Development in the 20th Century

Organisers: Olival Freire Junior, Patrick Petitjean, Alexis de Greiff

Room: C2

Session I.: Politics and Scientific Internationalism

Wednesday, 29 July, 15.00 – 17.00

Chair: Olival Freire

UNESCO in the 50s: From the Periphery Principle to Technical Assistance

Patrick Petitjean

International Scientific Activity in an Autarchic and Isolated Regime: The Origins and Constitution of Particle Physics in Spain

Agustín Ceba Herrero, Jorge Velasco González

The Technical and Scientific Activities of the Office of Inter American Affairs (1940-1946)

Alexis De Greiff

The Exact Sciences and Politics in Argentina, Brazil, Portugal, and Spain in the Immediate Post-war Years: Common Features and Differences

Eduardo Ortiz

Session II.: Science and Development in 20th Century Ibero-America I.

Wednesday, 29 July, 17.30 – 19.30

Chair: Patrick Petitjean

Scientific Development Under Military Dictatorship: The Case of Brazilian Physicists (1964-1985)

Olival Freire

A New Look at an Old Devil: A Democratic Computer Market Reserve During an Authoritarian Dictatorship

Ivan da Costa Marques

Scientific Policies in Portugal During the Dictatorial Regime and the Physics and Genetics Communities (1929-1954)

Júlia Gaspar, Maria do Mar Gago, Ana Simoes

Shaping Scientific Communities in Francoist Spain, 1939-1967

Antoni Malet

Session III.: Science and Development in 20th Century Ibero-America II.

Thursday, 30 July, 15.00 – 17.00

Chair: Alexis de Greiff

Les Agronomes Sylviculteurs et les Politiques Forestières des Années 1930-1960 au Brésil

Diana Antonaz

Historical Notes on the Geophysics in Brazil – Petrobrás and the National Development

Aurino Ribeiro Filho, José Eduardo Clemente

The Mathematician Norberto Cuesta Dutari Recovered from Oblivion

José M. Pacheco

The Rebirth of a «Scientific Movement» and the Foundation of the National Board of Education in the First Period of Portuguese Dictatorship

Emília V. Gomez, Augusto J.S. Fitas, Fátima Nunes

Session IV.: Institutions for Science and Development

Thursday, 30 July, 17.30 – 19.30

Chair: Patrick Petitjean

Science and Social Inequality: Caste and Gender in Modern Physics in India

Abha Sur

Personal Motivation in the Creation of the First Profession and Research Institutions of Physics in Mexico

Maria Ramos

The Political Engagement of a Scientific Institution: The Museu Nacional of Rio de Janeiro in the Beginning of the 20th Century

Heloisa M. Bertol Domingues

S38 Marxism and 20th Century Natural Science

Organisers: Anja Jacobsen, Alexei Kojevnikov, Masakatsu Yamazaki, with the participation of Olival Freire Junior

Room:A15

Saturday, 1 August, 09.00 – 11.00

Chair: Anja Jacobsen

Marx's Appeal to Dutch Scientists

Leo P. Molenaar

Vygotsky, Blonsky and Marxist Psychology in Soviet Russia

Alexander Dmitriev

Soviet Marxism and Scientism

Alexei B. Kojevnikov

Re-examination of the Disputes Over the Interpretation of Physical Theories in Pre-War Soviet Russia: From the Philosophical Viewpoint

Koji Kanayama

Saturday, 1 August, 11.30 – 13.30

Chair: Alexei Kojevnikov

Foundations of Quantum Theory and Marxism: Rosenfeld Versus Bohm

Anja Skaar Jacobsen

Le Lyssenkisme et la Conceptualisation de la Science Prolétarienne

Deniz Uztopal

The Impact of the Soviet Genetics Controversy on Japan from the Late 1930s to the Early 1950s

Hirofumi Saito

Marxism as a Useful Tool: Japanese Particle Physicists

Masakatsu Yamazaki

Saturday, 1 August, 15.00 – 17.00

Chair: Masakatsu Yamazaki

Rejection and Acceptance of Plate Tectonics: Stalinism and the Japanese Geological Community

Jiro Tomari

Marxist Philosophy and Natural Science in the Last Days of the USSR

Paul Josephson

S39 Early Modern Conversations between Science and the W Religions

Organisers: Scott Gerard Prinster, Efthymios Nicolaidis

Room: A8

Friday, 31 July, 17.30 – 19.30

Chair: Ekmeleddin Ihsanoglu

The Heresy Prosecution of Renaissance Scholars Domenico Scandella, Giordano Bruno, and Galileo Galilei

Scott G. Prinster

Oswald Croll's "De signaturis internis rerum": A Theory of Pharmacognosy at the Crossroads of Tradition and Modernity

Fabienne Gallaire

The Atmosphere as Physical Mirror of the Society – The Case of Jean André Deluc (1727-1817)

Marita Hübner

Laplace's Private Religious Discomfort

Roger Hahn

The Scientific Revolution and the Two Faces of Augustinianism

Rob Iliffe

The Scientific Revolution and the Eastern Orthodox Church

Efthymios Nicolaidis

S40 Visual Representations in Science and Pseudo-Science in Pre- Modern and Non-Western Cultures

Organisers: Alexei Volkov, Vera Dorofeeva-Lichtmann

Room: A14

Session I.: Pre-modern Cartography

Friday, 31 July, 11.30 – 13.30

Chair: Alexei Volkov

Maps of Chinese Empire in East Asian Cartographic Traditions: An Attempt at a Typology

Vera Dorofeeva-Lichtmann

The Representation of Japanese Islands on European Maps

Ekaterina Simonova-Gudzenko

Map Behind the Mask of a Talisman: The Taoist Diagram of the "True Form of the Eastern Sacred Mountain Tai"

Sheng Jiang

Session II.: Diagrams in Pre-modern Science

Friday, 31 July, 15.00 – 17.00

Chair: Vera Dorofeeva-Lichtmann

Diagram and Algebraic Equations in Chinese Mathematics of the 13th Century: The Example of the Yigu yanduan by Li Ye

Charlotte V. Pollet

A Survey of Geometrical Figures in Korean Mathematical Texts in 17th to 19th Centuries

Jia-Ming Ying

Astronomy and Astral Divination in Early Medieval Japan

Kam-Wing Fung

Session III.: Talismans and Pseudo-medical Diagrams

Friday, 31 July, 17.30 – 19.30

Chair: Kam-Wing Fung

Mapping the Body in Early Medieval Daoism: Visualization of Deities in the Laozi Zhongjing

Alexandre Iliouchine

The Talismanic Tableaux of the Masters of Psalmodia: Between Writing and Image in China

Aurélie Nénot

Talismans and Diagrams in the Manuscripts of the Minority Nationalities of Northern Vietnam

Alexei K. Volkov

S41 Ideas and Instruments in the Iberian World in Early Modern Times (15th to 17th Century)

Organisers: Víctor Navarro Brotons, Henrique Leitão

Room: A4

Tuesday, 28 July, 11.30 – 13.30

Chair: Susana Gómez

Portuguese Cosmography in Sixteenth-Century Florence. Portuguese Maps in the Grand-Ducal Collections: Their Use, Influence and Legacy

Angelo Cattaneo

The Magnetic Variation and the Variation Compass in Portuguese Navigation Techniques, XV to XVIII Centuries

José Malhão Pereira

Mathematical Diagrams and Other Theoretical "Instruments" in 16th Century Nautical Science

Henrique Leitão

Mathematics and Cosmography in Sixteenth Century (Second Half) Spain: Instruments, Ideas, and Practices

Víctor Navarro Brotons

Tuesday, 28 July, 15.00 – 17.00

Chair: Henrique Leitão

Cosmography and Astrology in Manila: Tracing an Intellectual Network in the Iberian Colonial World

Ana Avalos

Clavius, Coignet, Galileo, Gunter: the European Discussion About the Sector in Lisbon

Samuel Gessner

Instruments for Learning. The Practice of Astrology and Astrological Discs

Tayra M.C. Lanuza-Navarro

Instruments Employed by Master Esquivel to Create the Map of Spain (c. 1555)

Isabel Vicente, Antonio Crespo

Tuesday, 28 July, 17.30 – 19.30

Chair: Víctor Navarro Brotos

Mathematical Instruments in the Spanish Artillery Treatises, 1530-1700

Mariano Esteban Piñeiro

New Worlds and Old Languages: The Problem of the Transmission of Knowledge in Utopian Literature

Susana Gómez

Jose Zaragozà and the Scientific Renewal in 17th Century Spain: Ideas, Instruments, and Practices

Eduard Recasens

S42 The Emergence of the Periodical Form (17th-18th Centuries) as an Instrument of Scientific Change

Organisers: Jeanne Peiffer, Maria Conforti, Fernando Reis, Iordan

Avramov

Room: B3

Wednesday, 29 July, 15.00 – 17.00

Chair: Fernando Reis

Advancing the Baconian Science? ‘Queries for Natural History’ in the Early Philosophical Transactions and the Correspondence of Henry Oldenburg

Iordan V. Avramov

Nouvelles Stratégies de Communication Scientifique dans l’Italie Moderne. Les Publications de A. Vallisneri dans la Revue « La Galleria di Minerva»

Cristina Dessì

Testimonial Forms of Scientific Knowledge Presentation

Simone De Angelis

Mathematical Instruments in the Seventeenth-century Journal des Savants

Jeanne Peiffer

Wednesday, 29 July, 17.30 – 19.30

Chair: Maria Conforti

Beyond Instructions. Scientific Instruments in Early Modern Italian Periodicals

Maria Conforti

Notes on Advertising Microscopes in the Seventeenth Century Italy.

Michela Fazzari

About the Scientific Discourse in the Kaiserlich-königlich Privilegirten Anzeigen

Ágoston Zénó Bernád

A Veil of Ignorance: Anonymity and Promotion of Self in the Eighteenth-Century Republic of Letters

Mathias Persson

Thursday, 30 July, 15.00 – 17.00

Chair: Jeanne Peiffer

Disseminating the Sciences to the Portuguese Readers in Late Eighteenth-century Periodicals

Fernando E. Reis

Jacopo Riccati Organizer of Mathematics Knowledge and Advanced Research in Italian Journals of 18th Century

Clara Silvia Roero

Vulgariser le Mesmérisme: le Magnétisme Animal dans les Périodiques Italiens au XVIIIe Siècle

Patrizia Delpiano

Les Observations sur la Physique et les Questions Agricoles Entre 1771 et 1779

Paul M.M. Robin

Thursday, 30 July, 17.30 – 19.30

Chair: Silvia Roero

Fonction et Statut de la Traduction dans le Journal des Scavants

Georgette Stefani-Meyer

Communicating Swedish Science in German: The Periodicals of Swedish-Pomerania

Andreas Önnersfors

S43 Science, Space, and Claims to European Domination – The Dynamics of Knowledge from the Renaissance through the Enlightenment

Organisers: Catherine Jami, Laszlo Kontler, Antonella Romano

Room: B2

Friday, 31 July, 17.30 – 19.30

Chair: Antonella Romano

European Scientific Mission in China Seen From Mexico: Challenging European Domination from the "Periphery"

Antonella Romano

New Knowledge on the New World and the Shaping of Historical Discipline: Provincializing the Enlightenment

Silvia Sebastiani

Relevant Knowledge on the Margins: Maximilian Hell and the Eighteenth-century Astronomers' Republic

László Kontler

Herder's Travels: Language, Sociability, and the Concept of the Nation

Anthony LaVopa

Useful Knowledge and Academic Reform in Hungary at the End of the Eighteenth Century

B. Zsuzsanna Török

Erudition as Epistemic Culture: Ideals, Strategies, Practices

Hans Erich Boedeker

S44 The Transmission of Modern Scientific Knowledge from the West to China

Organisers: Baichun Zhang, Yibao Xu

Room: A5

Saturday, 1 August, 11.30 – 13.30

Chair: Baichun Zhang

Expeditions of the Russian Academy of Sciences and Studying of China in the First Half of the Nineteenth Century

Tatiana Y. Feklova

Galileo's Military Compass in China

Yibao Xu

Westernization of Mathematics Education in China: Calvin Wilson Mateer's Work

Yi Han

Development of Mathematical Education and the Professionalization of Chinese Mathematicians During 1860-1904

Miao Tian

Saturday, 1 August, 15.00 – 17.00

Chair: Yibao Xu

The Transmission of Western Mechanics into China in the Seventeenth Century

Baichun Zhang, Miao Tian, Matthias Schemmel

The Modernization of Chinese Industry Via Meiji Japan

Jian Yang

The Academic Activities of the Chinese Physicists in Europe from 1920s to 1950s

Xiaodong Yin

Animadversion on the Quantum Mechanical Viewpoints of the Copenhagen School in China from 1950s to 1970s

Huakai Hu

S45 The Antikythera Mechanism and its Place in the History of Science, Technology and Ideas

Organisers: Alexander Jones, Yanis Bitsakis

Room: A1 (on Friday) and B2

Session I: Discovery and Background

Friday, 31 July, 17.30 – 19.30

Chair: Mike Edmunds

Opening

Mike Edmunds, Alexander Jones

Sl, CW, PL, Slony

The Antikythera Shipwreck, the Treasure and the Fragments of the Mechanism
Mary Zafeiropoulou, Panagiotis Mitropoulos

Prerequisites for the Antikythera Mechanism to be Constructed in the 2nd Cent BCE
Theodosios Tassios

The Antikythera Mechanism, the First Mechanical Universe
Xenophon Moussas, Dionysios Kriaris

Discussion

Session II.: The Mechanism

Saturday, 1 August, 09.00 – 11.00

Chair: Mike Edmunds

The Antikythera Mechanism: An Instrument of Mathematical Astronomy
Tony S. Freeth

A Practical Approach to Studying the Antikythera Mechanism
Michael T. Wright

A New Model of the Antikythera Mechanism
Kyriakos Efstathiou, Theodora Zacharopoulou, Magdalini Anastasiou, John-Hugh Seiradakis

The Solar Anomaly and the Venus Display on the Antikythera Mechanism
James C. Evans

Saturday, 1 August, 11.30 – 13.30

Discussion

Session III.: The Inscriptions

Chair: Alexander Jones

The Inscription on the Antikythera Mechanism
Yanis Bitsakis, Agamemnon Tselikas, Alexander Jones

The Front Cover Plate of the Antikythera Mechanism
Agamemnon Tselikas, Yanis Bitsakis

The Eclipse Inscriptions within the Context of Ancient Astronomy
John M. Steele

Discussion

Saturday, 1 August, 15.00 – 17.00

The Parapegma of the Antikythera Mechanism
Tony Freeth

Astronomical Implications of the Parapegma of the Antikythera Mechanism
Magdalini Anastasiou, John-Hugh Seiradakis

The Antikythera Parapegma in Context
Daryn Lehoux

Discussion

Session IV.:The Mechanism in Context

Chair: Theodossios Tassios

Mechanics, Thought, and the Marketplace – The Antikythera Mechanism in Context

Michael G. Edmunds

Saturday, 1 August, 17.30 – 19.30

Instructions for the Instrument-Maker? Ptolemy's Planetary Hypotheses and Mechanical Representations

Elizabeth Burns

A Comparison Between the Astrolabe and the Antikythera Mechanism

Flora Vafea

Une Fille d'Anticythère: La Calotte Zodiacale de Chevroches et ses Cousins Bourguignons

Frédéric Devevey, Christian Vernou, Patrice Cauderlier

The Inscriptions of the Disc of Chevroches into their Context

Patrice Cauderlier

Discussion

S46 National Funding of Biomedical Research

Organisers: Giuliana Gemelli, Jean-François Picard, William H. Schneider

Room: A3

Tuesday, 28 July, 11.30 – 13.30

Chair: William H. Schneider

From Private Initiative to Public Government Funding of Medical Research and Public Health in Italy: Opportunities and Constraints

Giuliana Gemelli

The Medical Research Council in Britain: Science, Utility and Politics Since 1913

John V. Pickstone

The First Medical Research Institute in China: The North Manchurian Plague Prevention Service

Daqing Zhang

The Meeting of Medicine and Biology in France: Success and Limits of Political Planning

Jean-François Picard

Tuesday, 28 July, 15.00 – 17.00

Chair: Giuliana Gemelli

The Birth of the Fight Against Cancer in Europe: The Case of EORTC

Bertrand Dargelos

Internal and External Influences on the Establishment of the NIH Extramural Funding Program in the United States

William H. Schneider

Shaping Scientific Research with Decisions Not to Fund: The U.S. Government and Human-Embryo Research

Doris T. Zallen

Researching Public Health in the Age of Biomedicine: Population-Based Science and Expertise in France and Britain (1940s-1980s)

Luc Berlivet

S47 Letters at War – Scientific Controversies in the Correspondences of the 17th and 18th Century
Organisers: Anne-Lise Rey, Siegfried Bodenmann

Room: A13

Tuesday, 28 July, 11.30 – 13.30

Chair: Siegfried Bodenmann

The Interplay Between the Private and the Public Dimensions in 17th and 18th Centuries Scientific Debates

Marcelo Dascal

Geometrization or Mathematization: Christian Huygens' Critiques on Infinitesimal Analysis

Fabien Chareix

Routine Controversies: Mathematical Challenges in Early Modern France

Catherine Goldstein

La Controverse Entre G. W. Leibniz et Denis Papin: de la Polémique Publique à la Correspondance

Anne-Lise Rey

Tuesday, 28 July, 15.00 – 17.00

Chair: Jean-Pierre Schandeler

Anatomie d'une Controverse Épistolaire: la « Correspondance » Leibniz-Clarke (1715-1716)

Philippe Hamou

Le Rôle des Correspondances dans la Querelle de la Circulation Sanguine

Claire E. Crignon-De Oliveira

Correspondre avec Son Médecin à l'âge des Lumières: débats et contestations

Vincent Barras, Séverine Pilloud

Enlightened Controversies or Controversies in the Enlightenment? Albrecht von Haller versus Coschwitz and La Mettrie

Rainer Godel

Tuesday, 28 July, 17.30 – 19.30

Chair: Anne-Lise Rey

La Violence sous le Verbe Académique. Aspect Rhétorique d'un « Débat » sur la Certitude en Histoire à l'Académie des Inscriptions et Belles-lettres au XVIIIe Siècle

Jean-Pierre Schandeler

Spreading the Word: Reporting an Eighteenth-Century Controversy About Lightning Rods

Roderick W. Home

Une Réconciliation Controversée de Séléné et Newton: Clairaut, d'Alembert, Euler et la Théorie de la Lune

Siegfried Bodenmann

Final Discussion

Anne-Lise Rey, Siegfried Bodenmann

S48 Networks of Instrumentation in the Neurosciences

Organisers: Jean-Gaël Barbara, Cornelius Borck

Room: A10

Friday, 31 July, 11.30 – 13.30

Chair: Jean-Gaël Barbara

Technical Advances in Neurochemistry: Histochemistry and Immunohistochemistry

Claude A. Debru

A Fine Balance: The Cultural Implications of Indirect Measurement

Gabriel Finkelstein

Action Potentials and the "Digitization" of the Nervous System by European Scientists Between 1900 and 1950

François Clarac

The PPI Network: From Spiritual Brain to Future Antipsychotics?

Nicolas Langlitz

Friday, 31 July, 15.00 – 17.00

Chair: Cornelius Borck

Epilepsy, a Disease Between the Fields of Clinics and Surgery in the Twentieth Century

Celine Cherici

Electric Fish Discoveries in Modern Age: Complex Networks of Scientific Endeavour and Historical Intricacies.

Marco Piccolino

From Leipzig to Cambridge, from Wundt to James: Hugo Münsterberg and his Laboratories for Experimental Psychology

Henning Schmidgen

Travels of a Bioassay: The Eserinized Leech Muscle in Henry Dale's Lab and Beyond

Tilli Tansey

Friday, 31 July, 17.30 – 19.30

Chair: Cornelius Borck

Ex-radar Folk with Biological Leanings': Models, Electronics, and the Nerve Impulse at WWII

Max Stadler

What was in their Luggage? German Refugee Neuroscientists and the Emergence of Interdisciplinary Research Networks in North-America, 1933-1963

Frank W. Stahnisch

S49 Mediators of Sciences. Women Translators of Scientific Texts, 1600-1850 – Mediatrices de Sciences. Femme Traductrices de Textes Scientifiques, 1600-1850

Organisers: Patrice Bret, Brigitte Van Tiggelen

Room: A3

Wednesday, 29 July, 09.00 – 11.00

Chair: Patrice Bret

Women Translators in 19th Century Greece: The Case of "Ladies' Newspaper" and "Estia"

Poly Giannakopoulou

Transforming the Text: Translation Practices of the Philosopher, Emilie Du Chatelet

Judith P. Zinsser

Mariangela Ardinghelli: Poetry and Electricity in 18th-century Naples.

Corinna Guerra

Mme Thiroux d'Arconville and the Uses of Translation : Anonymity, Autonomy, and Authorship in Women's Contribution to Chemistry in the XVIIIth Century

Brigitte R.P. Van Tiggelen

Wednesday, 29 July, 11.30 – 13.30

Chair: Brigitte R.P. Van Tiggelen

Madame Lavoisier, une Negociatrice de la Republique des Lettres

Keiko Kawashima

Women Translating Science in the Spanish Enlightenment

Elena Serrano

Mme Picardet and the Translation of European Chemistry at the End of the Eighteenth Century

Patrice Bret

God in Translation: Mary Somerville and the Moral Guardianship of Science

Michal Meyer

S50 Plants as Ideas and Instruments: A Symposium in Memory of Philip J. Pauly

Organisers: Barbara Kimmelman, Harro Maat

Room: A6

Session I.: Plants as Ideas of Culture and Taste

Wednesday, 29 July, 09.00 – 11.00

Chair: Barbara Kimmelman

In the Name of the Bourgeoisie. Early Belgian Plant Collectors in America (1830-1865)

Denis J.N. Diagre

Seeds of Wealth: The Changing Life of Cotton Plants in Nineteenth Century Western India

Sandip K. Hazareesingh

Pure Lines, Modular Genotype, and Entrenched Genetic Identity: A Culture of the Rise of Modern Genetics (1860-1915)

Christophe Bonneuil, Philip Thurtle

A Taste for the Spoils of Empire: David Fairchild and American Plant Cosmopolitanism

Barbara A. Kimmelman

Session II.: Plants as Instruments of Public Policy

Wednesday, 29 July, 11.30 – 13.30

Chair: Harro Maat

What Has Been Learned from Past Green Revolutions?

Jonathan Harwood

The Co-Evolution of Potatoes and Pigs and the Political Economy of Nazism

Tiago Saraiva

Instrumental Thinking About the Genotype and Phenotype of IRRI's High Yielding Rice Varieties

Harro Maat

Botanical Education: Contested Territories in Public Education 1900-2000

Dawn Sanders

S51 For Better or for Worse? Collaborative Couples in the Sciences

Organisers: Brigitte Van Tiggelen, Annette Lykknes

Room: A3

Friday, 31 July, 11.30 – 13.30

Chair: Brigitte Van Tiggelen

Changing Strategies for Collaborative Couples in the Sciences

Nancy G. Slack

The Allocation of Scientific Credit to Collaborative Couples: The Lederbergs and the 1958 Nobel Prize in Physiology

Pnina Geraldine Abir-Am, Christina C. Luo, Pinar A. Ozisik

Ida and Walter Noddack: A Collaborating Couple in Chemistry

Brigitte Van Tiggelen, Annette Lykknes

Invisibility and Partnership: Families in Early Twentieth Century Swedish Science

Staffan R. Bergwik

Friday, 31 July, 15.00 – 17.00

Chair: Annette Lykknes

Scientific Couples in Hungary

Eva Vámos

Married for Science: Success and Failure in the Collaboration Between Astrid Cleve and Hans von Euler-Chelpin, 1902–1912

Kristina Espmark

Science at Terling: Placing Collaboration in the Context of the Victorian Country House

Donald L. Opitz

Pioneering Couples in Chemistry and in its Popularisation

Jean-Jacques Dreifuss, Natalia Tikhonov

S52 Formation of Experimentation in Plant Sciences from 18th to 19th Centuries

Organisers: Brigitte Hoppe, Nicolas Robin

Room: A15

Friday, 31 July, 11.30 – 13.30

Chair: Brigitte Hoppe

Studies on the Balsams in the 18th Century: A Modern Experimental Approach

Marcia H.M. Ferraz, Ana M. Alfonso-Goldfarb, Silvia I. Waisse de Priven

Plants, Private Estates and Public Assistance: Formation of Plant Breeding Experimentation in Russia, 18th – 19th Centuries

Olga Yu. Elina

From Experimentation on Plants to an Experimental Analysis of Plants in Early Electrophysiology

Brigitte Hoppe

Friday, 31 July, 15.00 – 17.00

Chair: Nicolas Robin

18th Century Utilitarian Botany and the Manufacturing of Potash in Colonial Brazil

Fernando J. Luna de Oliveira

The Experimental Discovery of the Nature of Plants – The Empirical Spirit of the Scientific Revolution

Nicolas Robin

The Human Instrument in the 18th Century Laboratory

Larry Stewart

S53 Communicating Science in 20th Century Europe: Comparative Perspectives

Organisers: Arne Schirmache, Leszek Zasztowt

Room: A14

Session I: 20th Century Publishing Phenomena

Tuesday, 28 July, 11.30 – 13.30

Chair: Arne Schirmacher

New Initiatives in Popular Science Publishing in Early Twentieth-Century Britain

Peter J. Bowler

Two Models or One? Popularization of Science in Poland Before and After the Collapse of the Soviet Bloc

Jarosław Włodarczyk

Popular Science Books and Human-Origins-Research in Contemporary Spain. Atapuerca – The Making of a Magic Mountain.

Oliver Hochadel

Session II.: Science Communication as Political Tool

The Political Background of Polish and Soviet Science Popularization in the Post-war Period

Leszek Zasztowt

Tuesday, 28 July, 15.00 – 17.00

Chair: Christine Blondel

Public Policies of Publicisation of Science in Post-war France. Toward a "State Affair"

Andrée Bergeron

Session III.: Science Imprints: Science Content and Genres of Newspapers, Journals, Books

A Comparative Approach to the Representations of Science and Technology in the Portuguese Press at the Beginning of the 20th Century

Ana Simões, Ana Carneiro, Maria Paula Diogo

Science and Technology in the Early-20th Century Greek Daily Press

Erini Mergoupi-Savadiou, Faidra Papanelopoulou, Sypros Tzokas

The Popularization of Science in Hungary, 1867-1945: Textbooks, Media, Personalities

Tibor Frank

Sesion IV.: Beyond Print: Science Communication in the Early Audio-visual Age

Tuesday, 28 July, 17.30 – 19.30

Chair: Peter J. Bowler

Science Programs as Integral Part of Weimar and Post-war German Radio

Arne Schirrmacher

Science in the French Popular Media in the 1930s and 40s: From Radio to Movies, Songs, and Cabaret

Daniel Raichvarg

Session V.: New Perspectives in Popular Science Studies

General Discussion

S54 Sources of East Asian History of Science, Technology, and Medicine

Organisers: Paul U. Unschuld, Paul D. Buell, Christopher G. Muench (Germany/USA/USA)

Room: B3

Friday, 31 July, 11.30 – 13.30

Chair: Paul D. Buell

Textual Sources of the Traditional Chinese Life Science Feng Shui

Manfred Kubny

"Mister Chen's Instructions on the Inner Cinnabar": A Source for Transformation

Rudolf Pfister

A Source for the Cosmopolitan Medicine of the Mongol Era: Huihui Yaofang

Paul D. Buell

The Significance of Research on Ancient Chinese Medical Literature Preserved Not in Chinese Archives but in Foreign Libraries Only

Jinsheng Zheng, Zhibin Zhang

Friday, 31 July, 15.00 – 17.00

Chair: Paul D. Buell

Michael Boym, Le Chéron d'Incarville and João Loureiro – Three Important Sources in the History of Botany of China

Manuel S. Pinto, Noel Golvers

Manchu Texts on Natural Science in the Early Qing Period: The Manchu Anatomy and other Manchu Books on Mathematics and Medicine

Junsei Watanabe

Sources, Content and Influence of the Book "Les Secrets de la Médecine des Chinois" (1671)

Eric Marié

A New Realm of Sources for Chinese Medical Historiography. The Chinese Medical Manuscripts of the 16th to the 20 Century in Two Collections in Berlin

Paul U. Unschuld

Friday, 31 July, 17.30 – 19.30

Chair: Paul U. Unschuld

New Perspectives on Late Imperial Medical Texts

Angelika C. Messner

Chinese Medical Practice on the Western Frontier: A Case Study in Adaptation

Christopher Muench

S56 Communities and Communication in East Asian Sciences

Organisers: Catherine Jami, Christopher Cullen

Room: D1

Wednesday, 29 July, 09.00 – 11.00

Chair: Michele Thompson

Searching for the Community of 'Astronomers' in Early Imperial China

Cullen Christopher

Scholars, the State, and the Circulation of Mathematical Knowledge in Early Qing China (1644-1735)

Catherine Jami

The Emergence of Literati Mathematicians and the New Culture of Mathematics in Late Eighteenth-century Korea

Jongtae Lim

Medical Networks and Circulation of Knowledge in the Margins of the Qing Empire (1644-1911)

Florence Bretelle-Establet

Wednesday, 29 July, 11.30 – 13.30

Chair: Catherine Jami

Who Were the First Generation of ‘Statisticians’ in Early 20th Century China?

Andrea Bréard

Science, Nationalism, and Internationalism in Early 20th Century China

Fa-Ti Fan

Gia Truyen and Arapprochement Within the Healing Community in Vietnam

Michele Thompson

National Academy of Peiping and Scientists Trained in France

Xiao Liu

Wednesday, 29 July, 15.00 – 17.00

Chair: Christopher Cullen

Continuity/Discontinuity and Changing Agents of Japan's Colonial Sciences

Togo Tsukahara

Community Building and Transmission of Knowledge: The Case of Quantum Physics in Japan

Kenji Ito

Precious Few: East Asian Nobel Laureates in Science in the Twentieth Century

Dong-Won Kim

Wednesday, 29 July, 17.30 – 19.30

Chair: Togo Tsukahara

Identifying “Local Area Doctors”: TKM (Traditional Korean Medicine) Practitioners and Disease under the USAMGIK, 1945-1948

John DiMoia

Constructing the Community of Radiation Medicine in Post-war Japan: Communication Between Japanese and American Scientists

Aya Homei

Leaping from Theory to Practice: Mathematics in China in the Late 1950s

Jiri Hudecek

S57 Meanings of “Science” in Twentieth and Twenty-First Century East Asia

Organisers: Angelika C. Messner, Bridie Andrews Minehan

Room: A4

Saturday, 1 August, 09.00 – 11.00

Chair: Angelika C. Messner

Linking Chinese Crafts to Global Contexts – The Research Objective of Zhu Qiqian

Martin Hofmann

Dress Pattern Books and the Diffusion of Western Tailoring Techniques in Maoist China

Iris Hopf

Reference to Science in the Life-Stories of Senior Chinese Medicine Practitioners in the PRC

Lena Springer

Sentimental Education in Scientific Terms

Angelika C. Messner

Meanings of 'Becoming Scientific' in Republican and Early Communist China

Bridie Andrews Minehan

S58 Iron Curtains and Immaterial Instruments – The Circulation of Software and Computer Science in Cold War Europe

Organisers: Gerard Alberts, Maria Bardosova, Helena Durnova, Thomas Misa

Room: A10

Tuesday, 28 July, 11.30 – 13.30

Chair: Maria Bardosova

The Feedback of Fear: American and Soviet (Mis)Perceptions of the Other Side's Cybernetics Agenda

Slava Gerovitch

Computing in Russia Before and After 1991

Paul Josephson

When the Iron Curtain Leaked: Tracking Eastern European and Soviet Influences upon Belgian Computing History

Sandra C.M. Mols, Marie D'Udekem-Gevers

Jacek Karpiński – A Polish Bill Gates?

Izabela Bondecka-Krzykowska, Anna Ren-Kurc, Marlena Solak

Tuesday, 28 July, 15.00 – 17.00

Chair: Thomas J. Misa

Vladimír Vand and Scientific Computing

Alena Šolcová, Michal Křížek

Seeing Like a State? The "Functional Programming Systems" in the Central Planning Economy of East Germany

Simon Donig

Reasons for the Failure of Soviet Estonian Computer Project Juku

Laur Kanger

Tuesday, 28 July, 17.30 – 19.30

Chair: Gerard Alberts

Science and Politics Intertwined: Slovak Computing in the International Context

Maria Bardosova

Turning Programming Language into Working Technology: Compiler Construction at the Amsterdam Mathematical Centre, 1960

David Nofre, Gerard Alberts

Western Effort, International ALGOL 60: Compiler Construction in Czechoslovakia in Early 1960s

Helena Durnova

Eastern European Computer Pioneers' Roundtable

S59 Instruments for Modifying and Enhancing Oneself and their Social Impact: The Case of Amphetamines and Some of their Derivatives

Organisers: Pascal Nouvel, Maria-Teresa Brancaccio

Room: A3

Tuesday, 28 July, 17.30 – 19.30

Chair: Maria-Teresa Brancaccio

Les Thérapies Médicamenteuses de la Bile Noire par Râzî (865 – 925)

Mehrnaz Katouzian-Safadi

When 'Modifying the Self' is a Command: Amphetamines and the Allied Military in the Second World War

Nicolas Rasmussen

Birth, Growth and Decline of a Bio-power: Some Remarks on the Carrer of the First Synthetic Psychotropic Drug, Amphetamine.

Pascal Nouvel

A Conceptual History of the Notion of Bio-power

Dominique Lecourt

Make Me Smarter': Amphetamines and the Quest for Cognitive Enhancement

Maria Teresa Brancaccio

S60 Colonizing Drugs – Constructing the Other in the Mirror of (Precarious) Substances

Organiser: Bettina Wahrig

Room: A7

Saturday, 1 August, 15.00 – 17.00

Chair: Bettina Wahrig

Will the Real Colonizer Please Stand Up? Early Modern Controversies on the Effects of Tobacco on the Western Body.

Martina Mittag

Religion – Pharmacy – Transfer of Pharmaceutical Knowledge and Drugs Men of God as Mediators Between the Cultures (16th to 18th c.)

Sabine Anagnostou

Drugs from the Mountains: Coca as an Exotic Tonic (ca. 1850-1900)

Bettina Wahrig

Saturday, 1 August, 17.30 – 19.30

Chair: Bettina Wahrig

The Toxic Total Situation: Preservatives and the Critical Consumer Around 1960 in West Germany

Heiko Stoff

Standardizing Sleeping-Sickness Therapy as a Precarious German-British-Belgium-Spanish Cooperation in the Interwar Period

Marion Hulverscheidt

Test Systems and Mutagens: The Regulation of Scientific, Consumptive, and Dangerous Objects

Alexander Schwerin

S63 Entanglements of Instruments and Media in Investigating Organic Worlds

Organisers: Joan Steigerwald, Philippe Huneman

Room: A13

Saturday, 1 August, 11.30 – 13.30

Chair: Joan Steigerwald

Defining Life in the Eighteenth Century: Instrumental Reasoning, Excitable Matter and Living Subjects

Joan Steigerwald

The Very Nervous Apparatus : Entanglements of Media, Mind and Matter

Cornelius Borck

Response-able Experimentation with Toxic Algae

Astrid Schrader

Generating “Anxiety Like Phenotypes” in the Elevated Plus Maze: A Measure of Mouse Anxiety or a Model of Human Anxiety?

Nicole C. Nelson

Saturday, 1 August, 15.00 – 17.00

Chair: Joan Steigerwald

The Use of Computer Simulation in Studying Biological Evolution: Pure Possible Processes, Selective Regimes and Open-ended Evolution.

Philippe Huneman

Recalcitrant Instruments, Objects and Investigators in the Non-invention of a Non-invasive Prenatal Genetic Diagnosis Technique

Aryn Martin

Excitable Media: Intra-cellular Signal Transduction and Intra-active Models of Cellular Life

Natasha S. Myers

S64 Working with Pages and Texts

Organisers: Karine Chemla, Ito Kenji, Richard Yeo

Room: A3

Session I.: Working with Texts and Inscriptions

Friday, 31 July, 17.30 – 19.30

Chair: Ito Kenji

Working with Texts and Spaces to Extract Square Roots in Medieval Sanskrit Mathematics

Agathe Tamar Keller

From Quarry to Paper: Cuvier's Reconstruction of Montmartre Tertiary Mammals

Bruno Belhoste

Laboratory Writing

Hans-Jörg Rheinberger

Session II.: Writing and Rewriting Writings

The Significance of Paratext in Buffon's Histoire Naturelle

Stephane Schmitt

Saturday, 1 August, 09.00 – 11.00

Chair: Karine Chemla

A Mathematician Writes within a Given Genre: Books of Mathematical Recreations by Dénes König

Mitsuko Mizuno

Session III.: The Analysis of Textual Practices and Historiography

Focusing on Actual Manuscripts to Discuss What the Genuine Text of Euclid Was

Ken Saito

Editing Texts and Diagrams: Medieval Islamic Discussions of Archimedean Solids

Gregg De Young

La Reflexion du Passé Industriel des Pays de Boheme aux Archives du Musée National Technique de Prague

Milada Sekyrková

S65 Diverse Cultural Practices in 20th Century Nuclear Physics

Organisers: Gisela Mateos, Maria Rentetzi

Room: A9

Friday, 31 July, 15.00 – 17.00

Chair: Christian Forstner

The Greek-American Connection: The First Nuclear Reactor in Greece

Maria Rentetzi

The Mexican-American Connection: The First Mexican Accelerator

Gisela T. Mateos

The Norwegian-American Connection: Atom Smashers Before and After WW II.

Roland Wittje

Friday, 31 July, 17.30 – 19.30

Chair: Gisela Mateos

Turkey's Participation to the 'Atoms for Peace' Program: Expectations and Consequences

Kaan Ata

Nabor Carrillo and the First Van De Graaff Particle Accelerator in Mexico

Enrique Esqueda Blas, Ramos Lara María de la Paz

S66 Framing the Outer World in the Biological and Human Sciences: A Comparative Historical Perspective

Organisers: Vincent Guillin, Beth Hannon

Room: A4

Friday, 31 July, 11.30 – 13.30

Chair: Vincent Guillin

Circumstances in Context: The Example of John Stuart Mill's Ethology

Vincent Guillin

Weismann's Barrier?: the Roles of Soma and Environment in Late Nineteenth Century Evolution

Fern M. Elsdon-Baker

Milieu, Umwelt and Lebensraum. Friedrich Ratzel and the Beginnings of an Environmental Science

Wolf Feuerhahn

The Internal and the External in Evolutionary Theory at the Turn of the Twentieth Century

Sander Gliboff

Friday, 31 July, 15.00 – 17.00

Chair: Vincent Guillin

"To Do Work in the World": Instrumentalism in Pragmatist Psychology and Philosophy

Stephane Madelrieux

The Concept of Umwelt in Physiological Anthropology: Von Uexküll, Portmann, Buytendijk

Anne M. Fagot-Largeault

The Concept of Biodiversity: Between Science and Society

Marc Kirsch

Finding the Boundary: Evolutionary Developmental Biology

Elizabeth M. Hannon

S67 Uses of Cultural Manifolds in Research

Organisers: Nathan Sivin, Xiaochun Sun

Room: A7

Saturday, 1 August, 09.00 – 11.00

Chair: Xiaochun Sun

Cultural Manifolds and the Need for Generalists

Nathan Sivin

The Manipulation of Fire in Chinese Alchemy

Juan He

Animals as Cultural Manifold

Martina Siebert

Saturday, 1 August, 11.30 – 13.30

Chair: Nathan Sivin

What Inhibited the Development of the Planetary Theory in Song China?

Xiaochun Sun, Guangchao Wang

Control vs. Autonomy: Fabrications in Song Astronomy

Yu Yu Dong

The Needham Question and Beyond

Liuxiang Hao, Xiaoye Cao

S69 The Social History of Military Technology

Organisers: Barton C. Hacker, Margaret Vining

Room: B3

Tuesday, 28 July, 11.30 – 13.30

Chair: Barton C. Hacker

Separating the Men from the Polloi: The Rejection of Missile Technology by the Classical Greeks

Nick D. Barley

Republican Roman Rejection of Siege Technology

Colin D. Hough

Seven Reasons for the Rejection of Known Military Technologies in the Classical World

Tracey Rihll

Children of Mercury, Children of Mars: Civil and Military Technology in German Vernacular Illustrations, 1400-1525

Bert Hall

Tuesday, 28 July, 15.00 – 17.00

Chair: Barton C. Hacker

Native American Adoption of Firearms 1609 – 1640

Lawrence E. Babits

The Embodied Soldier and the Impact of Technology

Michael Budd

Spirit of the Age: Inventors, Scientific Instruments, and the Military at the Royal Artillery Institution, Woolwich

Steven A. Walton

The Conventionnel, the Workers and the War. An Early Welfare State or a Workforce Militarization?

Christophe Bonnet

Tuesday, 28 July, 17.30 – 19.30

Chair: Barton C. Hacker

Weapons and Ethnology in 19th-Century Britain: Lt.-Gen. Pitt-Rivers and his Museum

David F. Channell

James H. Burton, John W. Mallet, and the Foundations of a New South: System, Uniformity, and Control at the Confederate Ordnance Department

Steven G. Collins

Navy, Taxes, and People: The Italian Royal Navy's 1874 Shipbuilding Program and its Consequences

Ciro Paoletti

"Hunk O'Tin" – The American Ambulancier and his Model T in France, 1915-1919

Jeffrey Larrabee

Wednesday, 29 July, 09.00 – 11.00

Chair: Margaret Vining

Visualizing Tanks: War Artists Confront a New Technology on the Western Front

Barton C. Hacker

Impact: Packaging the U.S. Army Air Force Fire-Raising Practice During the Second World War

Ralph R. Hamerla

The Norden-Victor Connection: Making Bombsights and Selling Adding Machines in World War II

Michael T. Tremblay

Wednesday, 29 July, 11.30 – 13.30

Chair: Margaret Vining

The Development of Air Defense Systems in France: From Transatlantic Networks to Systems Engineering (1955–1975)

Pierre-E. Mounier-Kuhn

Greek Military Aviation in the Electronic Era: Technical Protocols, Competition, and International Trends

Dimitrios E. Ziakkas

Touching the Face of God: Religion and the U.S. Air Force

Tim Cathcart

S70 'Spacing Earth History': Geological and Paleontological Sciences in Cultural Contexts from 17th to 20th Centuries

Organisers: Bernhard Fritscher, Miklos Kazmer

Room: A16

Wednesday, 29 July, 09.00 – 11.00

Chair: Bernhard Fritscher

Une "Approche Organique" des Montagnes en Europe Médiévale – Sauvegardée par des Mineurs Allemands en Hongrie et Documenté par Marsigli

Péter Papp

Origin of Geology in the Netherlands (1780-1839)

Thomas J.A. Reijers

First Geological Investigations of Australia's Coastal Regions by French and British Expeditions, 1788-1803: An Example of Scientific Cooperation Between Two Nations at War

Wolf Mayer

Wednesday, 29 July, 11.30 – 13.30

Chair: Bernhard Fritscher

Letters of German Naturalists to Domokos Teleki, the First President of the Jena Mineralogical Society, in the End of the 18th Century

István Viczián

Mining Versus Archaeology: National Styles in Early 19th Century Stratigraphy

Bernhard Fritscher

Lyell's Palaeontological Research in Gran Canaria

Consuelo Sendino, Paul D. Taylor

Wednesday, 29 July, 15.00 – 17.00

Chair: Miklós Kázmér

Genealogical Reasoning in Alpine Tectonics. Linking Family History to Earth History

Andrea B. Westermann

Styles in Geology: Eduard Suess and Erudition

Ernst P. Hamm

The Ries Patriots: The Influence of Nationalism and Local Confinement on a Science Distrusting Instruments

Martina M. Kölbl-Ebert

Wednesday, 29 July, 17.30 – 19.30

Chair: Miklós Kázmér

Geology as a Service in Nation Building – The Japanese Example

Andreas N. Küppers, Yasuo Nogami

The Soviet Experts and the Integrated Survey of Natural Resources in China (1950s)

Xiaoqing Hu

S71 Instrumentalizing Social Practice – Socializing Instrumental Practice

Organisers: Peter Heering, Klaus Staubermann

Room: A9

Tuesday, 28 July, 11.30 – 13.30

Chair: Peter L. Jakab

Political Ideas and Instrumental Ideals: The Design of Scientific Instruments in the Late 18th Century

Peter Heering

Calorimetry and the Social Question in the Late Nineteenth Century

Elizabeth R. Newswald

Instrumental Knowledge: Understanding Historic Socio-Technological Practice through Engineering Models

Klaus Staubermann

Accelerating for Peace Science, Technology, and the American Decade of Nuclear Research in India

Jahnvi Phalkey

Tuesday, 28 July, 15.00 – 17.00

Chair: Klaus Staubermann

Sounds for Comfort - of Computers Users in the 1950s

Gerard Alberts

Orbiting Mars, Orbiting a Camera: The Ambiguities of Building a Scientific Research Group Around a Single Instrument

Jan Frercks

Gathering Data, Losing Focus: The Aeronautical Research Instrumentation of Samuel Pierpont Langley

Peter L. Jakab

“A Fatal Hour for Metallography”: The Cognitive and Social Appropriation of New Instruments and Methods in Aachen’s Ferrous Metallurgy from 1900 to 1914

Stefan Krebs

S72 60 Years of Cybernetics and Information Theory – Ideas, Artefacts and Instruments

Organiser: Lars Bluma

Room: A9

Wednesday, 29 July, 09.00 – 11.00

Chair: Peter Heering

What Cybernetics Did to Change the Mindsets of Engineers: New Design Procedures in the 50s and 60s

Lars Bluma

Crossing Boundaries of Cybernetics and Information/Communication Theory. The Idea of Fuzzy Sets and its First Technical Application

Rudolf Seising

Bionic Prototypes as Scientific Models: Experimental Epistemology at the Biological Computer Laboratory 1958-1974

Jan K. Müggenburg

Richard Wagner and his Book on Feedback Systems in Economy

Frank Dittmann

S73 Ideas of Technology Across Time and Space: Changing Concepts and Ideologies

Organiser: Eric Schatzberg

Room: A9

Wednesday, 29 July, 15.00 – 17.00

Chair: Lars Bluma

The Arts and Engineering: Their Meaning and Cultural Place in Late Medieval and Early Modern Europe

Pamela O. Long

A Weberian Model on Technological Knowledge – Medieval Transmission of Knowledge on Pigments and Dyes for Painters and Illuminators

Guido Frison

“Machine” and “Decline”: Conceptions of Technik in the Conservative Revolution of the Weimar Republic

Adelheid Voskuhl

Wednesday, 29 July, 17.30 – 19.30

Chair: Stefan Krebs

The Transnational Shaping of Theory of Technology in Imperial Japan, 1931-1945

Aaron S. Moore

The Role of Continental Concepts of Technology in American Social Thought, From Talcott Parsons through Herbert Marcuse

Eric Schatzberg

S74 Technology in the Interaction with Society and the Environment

Organiser: Timo Myllyntaus

Room: A9

Tuesday, 28 July, 17.30 – 19.30

Chair: Irina Gouzévitch

Technological Responses to Concern for the Future: Finnish Experience on Copying with Limits of Natural Resources

Timo J. Myllyntaus

Driving is (Not) for Everyone – Gender Perspective on Motoring Experiences in Finland, 1949-1980

Riikka Jalonen

Against the Tide – Technology Transfer from the Periphery

Jan Kunnas

Resource Conservation and Electrification in California

James C. Williams

S75 Playing with Technology

Organiser: Stefan Poser

Room: A9

Thursday, 30 July, 15.00 – 17.00

Chair: Reinhold Bauer

Heavenly Games of Flight on the Prehistory of Flying: Between Aesthetic Illusion and Wonderful Technology

Natascha Adamowsky

Toys, Educational Toys, and Scientific Instruments

Joseph Wachelder

Stories of Modern Technology in the Child's World During the Cold War: The Case of the Netherlands

Dick Van Lente

Technology, Play and Innovation

Stefan Poser

S76 Politics, Technology and Infrastructure

Organiser: ICOHTEC

Room: A9

Thursday, 30 July, 17.30 – 19.30

Chair: Janis Langins

Bertrand Goldschmidt, Plutonium and Technobiography

Matthew Adamson

The Building of the Paris Métro, from 1898 to Second World War: An Overview on the History of Technology

Pascal B. Desabres

Satellites into Plowshares: Politics and Space Technology, 1946-1967

Sean Kalic

A Glimpse Behind the Curtain: Polish Perspectives on the American Housing Industry in the 1950s

Slawomir Lotysz

Tires for Giants. The Development of the Pneumatic Tire and its Importance for Road Transportation

Jørgen Burchardt

S77 The Impact of Ideas and Ideologies on Science and Technical Innovations

Organiser: ICOHTEC

Room: A9

Friday, 31 July, 11.30 – 13.30

Chair: Dick van Lente

Engineers and Conservatives in the Creation of State Hydroelectric Power in Canada

Janis Langins

The Technology Gap in Canadian Medicare

John B. Stranges

Institutional Cultural Influence on the Application of Science to War, 1914 to 1945

David Zimmerman

Evidences Regarding the Introduction of Metallurgy and the Utilization of Gun Powder in Europe

Horia Colan

S79 Special Topics

Organiser: ICOHTEC

Room: A15

Friday, 31 July, 17.30 – 19.30

Chair: Alexandre Herlea

The Historical Development of the Notions “Natural” and “Artificial”

Vitaly Gorokhov

Water Pollution and its Treatment in Nineteenth-century United States

Anthony N. Stranges

Mining: Ideas and Instruments in Germany 1750 to 1900

Wolfhard Weber

The International Committee for the History of Technology (ICOHTEC). Scientific Development and Politics from 1968 till 1989

Holger Skorupa

S80 Practices, Views, and Networks in 19th and 20th Century Mathematics

Organisers: Laura Rodríguez, Frédéric Brechenmacher

Room: A16

Friday, 31 July, 11.30 – 13.30

Chair: Frederic Brechenmacher

What is 'Mathematical Practice' in The Philosophy of Mathematical Practice?

Jessica Carter

Hilbert on the Notion of Completeness: A Conceptual and Historical Analysis

Catherine Karella

Emile Picard: A View on his Mathematical and Epistemological Ideas

Pierre Lamande

History of Mathematics as a Way of Justification. Mathematicians' Views on their own Discipline During the Weimar Republic

Bjoern T. Schirmeier

Friday, 31 July, 15.00 – 17.00

Chair: Laura Rodriguez

Views and Practices in the Early Functional Analysis

Laura Rodríguez

A Triple Point of Mathematics: Born and Wiener's "New Formulation of the Laws of Quantization"

Arianna Borrelli

Networks and Individual Agency: The Case of Galois Theory in France at the Turn of the 19th Century

Caroline Ehrhardt

Friday, 31 July, 17.30 – 19.30

Chair: Laura Rodriguez

On the Identities of Algebra in 19th Century: Algebraic Practices, Networks, Cultural Issues

Frédéric Brechenmacher

Practices, Networks, and Fields: Making (Historical) Sense of Poincaré's Early Work

Renaud Chorlay

Shifting Boundaries. Kronecker's Early Work on Complex Multiplication and Dirichlet's Legacy in Number Theory

Ivahn Smadja

S82 Visual Cognition in the History of Science

Organisers: Christophe Heintz, Tamas Tofalvy

Room: C1

Friday, 31 July, 17.30 – 19.30

Chair: Tamás Tófalvy

Visual Cognition and History of Science

Christophe Heintz

Visual Thinking in Medieval Scientific and Philosophical Manuscripts

Anna Somfai

What are Genetic Maps Visualizations of?

Marion Vorms

The Role of Visuality in Konrad Lorenz's Philosophy of Science

László Nemes

**S83 Revisiting Joseph Nedham's 'Rivers and the Sea' Metaphor:
The Construction of Modern Science and Technology in a
Global Context, 17th-19th Centuries**

Organisers: Kapil Raj, Mau Chuan-hui

Room: A7

Friday, 31 July, 11.30 – 13.30

Chair: Kapil Raj

**Needham's Rivers and Sea Metaphor and the Nineteenth Century Perception of
Scientific Knowledge in India**

Irfan Habib

**Circulation Intercontinentale des Savoirs et des Techniques au Pérou (XVI-XVIIIe
Siècle)**

Carmen Salazar-Soler

**Maps, Perambulators, Repeating Circles, and Theodolites: Mapping in India and
Great Britain, 1780-1830**

Kapil Raj

**The Jesuit and the Long Life. The First French Translation of a Chinese Text of
Nurturing Life (Yangsheng) in the Early 18th Century**

Frédéric Obringer

Friday, 31 July, 15.00 – 17.00

Chair: Mau Chuan-hui

**From Starry Abnormity to Meteorological Phenomenon: The Impact of Aristotelian
View of Comet on Xu Guangqi and Xiong Mingyu in Ming Wanli Period**

Kuang-Tai Hsu

**Gewu Rumen: A Case Study of the Introduction of Western Physics into Nineteen-
Century China**

Hao Chang

**Artisanal Know-how and Modern Sciences: The Use of Chinese Traditional
Knowledge in French Research on Sericulture**

Chuan-Hui Mau

S87 The Reception of Darwinism at the Subnational Level: Cities

Organisers: Thomas F. Glick, Hans Henrik Hjermitsev

Room: A5

Tuesday, 28 July, 11.30 – 13.30

Chair: Thomas Glick

The Early Reception of the Origin of Species in Boston

Thomas F. Glick

**Harmony of Nature and Struggle for Survival: Reception of Darwinism in Russian
Plant Geography**

Anastasia A. Fedotova

Darwinism and Neo-Darwinism between Prague and Brno, 1900-1915

Michal Simunek, Tomas Hermann

Tuesday, 28 July, 15.00 – 17.00

Chair: Hans Henrik Hjermitsev

Darwinism and the Birth of the Polish Urban Intelligentsia: Warsaw, Cracow, and Lwów

Daniel Schümann

Darwinism and Cultural Struggles in Rural Askov and Metropolitan Copenhagen in Nineteenth-century Denmark

Hans H. Hjermitsev

S88 Comparative Reception of the Synthetic Theory of Evolution in the Soviet Union, Eastern and Central Europe

Organisers: Eduard I. Kolchinsky, Uwe Hossfeld, Oleg Philipchuk

Room: A5

Tuesday, 28 July, 17.30 – 19.30

Chair: Eduard I. Kolchinsky, Oleg Philipchuk

Peculiarities of Evolutionary Synthesis in Nazi Germany and Soviet Russia

Eduard Kolshinsky

The Development of Darwinism by Ukrainian Zoologists (Late 19th – Early 20th Centuries)

Oleg Pilipchuk

Theodosius Dobzhansky: A Large Step Towards Solving "The Species Problem" – A Main Step Towards "Evolutionary Synthesis"

Mikhail Konashev

The Teaching of Evolutionary Theory in Russian Secondary Schools Between the World Wars

Anna V. Samokish

The Selectionist Turn of Bernhard Rensch (1900-1990) through the Prism of Panpsychistic Identism

Uwe Hossfeld, Georgy S. Levit

Reception of Darwin's Ideas in Russia: The Struggle for Existence and Natural Selection. V. N. Sukachev's Experimental Program

Yakov Gall

S89 The Role of Rail Transport in Development of the Infrastructure in St-Petersburg (Russia) and Kiev (Ukraine) and their Interference in XIX – First Half of XX Centuries

Organisers: Margarita Voronina, Alexander Soldatov, Victor Shataev

Room: A10

Saturday, 1 August, 09.00 – 11.00

Chair: Margarita Voronina

Role of the Corpus of Railroad Engineers in Institutionalization of High Technical Education in Russia

Boris I. Ivanov

The Role of Institute of Engineers of Means of Communication (St. Petersburg, Leningrad) in Formation Engineers of Transport in 1910-1930

Margarita M. Voronina

Borodin Creativity in a Context of Development of Mobile Structure Engineering of Ukrainian Railroads (Second Half XIX in)

Viktor N. Shataev

The Warsaw Railway Station in St. Petersburg

Alexsander V. Soldatov, Nina P. Soldatova

Saturday, 1 August, 11.30 – 13.30

Chair: Alexander Soldatov

K.I. Potier (1786 - 1855) and Applied Geometry Development in Russia.

Natalya N. Eliseeva, Nikolai A. Eliseev

Department of Physics and its Professors in the Institute of Engineers of Means of Communication

Petr V. Velikorussov

The Historical Development in Kiev University of Railways Transport

Anna P. Berezhnyak

The Investigation of the Development of Non-traditional Types of Transport

Elena N. Eliseeva

Saturday, 1 August, 15.00 – 17.00

Chair: Victor Shataev

The Role of the Naval Engineering Institute in Creation of Russian Underwater Navy

Isay Kuzinets

Origin and Beginning of Building of Diesel Engines in the World (End of XIX-Beginning of XX Century)

Elena L. Sorochinskaya

S91 Biography as a Genre in Different National Traditions of Writing about Science and Scientists

Organisers: Galina Smagina, Aleksandar Petrovic, Marina Loskutova

Room: A13

Friday, 31 July, 11.30 – 13.30

Chair: Aleksandar Petrovic

Reading History of Women Scientists Through Biography : Life-stories of Lydia Rabinowitsch-Kempner, Lina Stern, and Gertrud Woker

Natalia Tikhonov Sigrist

Assessment of Different Biographical Approaches to Writing about Science and Scientists

Rose-Luise Winkler

Local Amateur Scholars of the 19th – early 20th Centuries in Russia: Biographical Tradition and Prosopographic Data

Marina V. Loskutova

Biographic Method as an Instrument of Historical-Scientific Research (the Example of W. F. Louguinine's Studies in Thermochemistry)

Elena A. Zaitseva, Galina I. Liubina

Friday, 31 July, 15.00 – 17.00

Chairs: Galina Smagina, Marina Loskutova

The Year that has Changed the Earth

Aleksandar Petrovic

Victor Conrad and the Seismological Service of Austria

Christa Hammerl

The Diaries of the Traveler Pyotr Kozlov: A Self-portrait in Geographic Space

Tatiana I. Yusupova

The First and the Only One: The Director of St. Petersburg Academy of Sciences Princess Ekaterina Dashkova and her Biographers

Galina I. Smagina

L'histoire de Science et l'Histoire de la Vie: Une Nouvelle Lecture de la Biographie du Savant

Natalia Knekht

S93 History of Prospective Technology Studies

Organisers: Imre Hronszky, Gerhard Banse, Armin Grunwald

Room: C3

Thursday, 30 July, 15.00 – 17.00

Chair: Gerhard Banse

Cooperation with Middle and Eastern European Countries in the Field of TA – Results and Experiences

Gerhard Banse

History and Perspectives of PTA – The Case of the EP

Miklós Györffi

The Development of Parliamentary Technology Assessment (PTA) in The Netherlands

Jan Staman

Parliamentary Technology Assessment in Europe – A Short history

Michael Rader

Thursday, 30 July, 17.30 – 19.30

Chair: José A. López Cerezo

Expectations and Expertise Meet. Nutritional Theories and Functional Foods

Marta I. Gonzalez, Rebeca Ibanez-Martin

Technology, Literacy, and Knowledge Society

Cipriano Barrio-Alonso, Irene Díaz García

Participation in Science and Technology: Learnings from the Swiss PubliForums and Publifocus

Sergio Bellucci

Friday, 31 July, 11.30 – 13.30

Chair: Klaus Kornwachs

The Methods of Herman Kahn in The Year 2000 Forecast Revisited

Klaus Kornwachs

Prospective Studies of Technology in Mexico and Latin America: Past and Future of Network Building

F. Medardo Tapia Uribe

On History of Roadmapping and Scenario Building

Imre Hronszky, Ágnes Fésüs

The Research and Public Diffusion of Science and Technology in the Museums

Garcia Myriam, Belén Laspra

Friday, 31 July, 15.00 – 17.00

Chair: Attila Havas

National Foresight Programmes in Central and Eastern Europe

Attila Havas, Michael Keenan

S&T Forecasting in the Soviet Union and the Post-Soviet Countries

Igor Yegorov

Florida Tech – Building a Research University (A Case Study)

Gordon L. Nelson

A Critical Approach to Public Understanding and Participation in Science and Technology

José A. López Cerezo, José L. Luján López, Montaña Cámara Hurtado

S94 Brief History of Characterisation of Engineering Materials and Structures

Organiser: László Tóth

Room: C5

Wednesday, 29 July, 11.30 – 13.30

Chair: László Tóth

The Role of the Natural and Engineering Sciences in the Economical and Social Reorganisation

László Tóth

Historical Background and Development of Impact Testing

Andre Pineau

Metal Fatigue – The Story of an Enigmatic Science

R. Sunder

Brief History of Structural Integrity Concept

János Lukács

Evolution of the Hardness Testing

Péter Tóth

Evolution of the Non-destructive Testing in Hungary

Peter Trampus

S95 History of Travel, Travel Medicine, and Traveler's Medical Kits

Organiser: Peter Felkai

Room: A14

Saturday, 1 August, 17.30 – 19.30

Chair: Péter Felkai

History of Travel Medicine and the Travelers

Péter Felkai

From the First "Fountain Pen" to Ball Point Pens. Writing Instruments from and for Medical Doctors.

Gerhard F. Strasser

Journeys of Medical Purpose in Ancient Near East (2nd Millennium B.C.)

Gaye Sahinbas Erginoz

S96 Seeing and Measuring, Constructing and Judging: Instruments in the History of the Earthsciences

Organisers: Ana Carneiro and Marianne Klemun

Room: A16

Tuesday, 28 July, 11.30 – 13.30

Chair: Ana Carneiro

Perception of Strong Winds in Early Modern Times

Katrin Hauer

Searching for Modernization – Instruments in the Development of Geological Sciences in Portugal (18th Century)

Isabel M.C. de O. Malaquias, Manuel S. Pinto

The 'Mineralogical' Task of Human Senses – A Survey on the Language of 'Mineralogy' in Weimar-Jena circa 1800

Benigna Kasztner

Travelling with Instruments: Italian Geologists in the Field Between the 18th and 19th Centuries

Ezio Vaccari

Tuesday, 28 July, 15.00 – 17.00

Chair: Marianne Klemun

Minerals Scrutinized: Alberto Betim Paes Leme (1883-1938) and the Application of Spectrography

Silvia F.M. Figueiroa

Aspects of the Role of Microscopes in the History of Petrology in Japan

Michiko Yajima

The Early History of Geological Maps and Their Use as Instruments of Discovery, With East–West Comparisons

David Roger Oldroyd

The Geologist's Hammer – Tool, Equipment, Instrument and/or Bagde

Marianne Klemun

Tuesday, 28 July, 17.30 – 19.30

Chair: Ana Carneiro

Measuring the Inaccessible Earth: Deep Time and Unreachable Spaces

Gregory Good

"A Bursting Landscape in the Middle of Portugal: Theories and Experiments by Georges Zbyszewski (1909—1999)"

Teresa S. Mota

Time Machines: Model Experiments in Geology

Thomas Brandstetter

Under the Spell of the Photographic Camera: A Case-study of the Use of Photography in Nineteenth-century Palaeontology

Ana M. Carneiro

Detailed Program of Regular Sessions

T02 Classical and Oriental Antiquity

Room: C1

Tuesday, 28 July, 11.30 – 13.30

Chair: Hermann Hunger

A Prehistoric Gnomon

J. Samuel Cornelius, George Abraham

Accounts of Living and Dying in Aristotle's De Long. and De Juv.

Keith Bemer

The Interaction of Mathematical and Physical Astronomy in Antiquity: The Earth-Sun Distance in Ptolemy's Astronomy and Cosmology

Christian C. Carman

Planetary Models as Expounded by Nilakantha in Aryabhatiya-bhashya

Kasi Viswanatha Sarma Upadyayula

Tuesday, 28 July, 15.00 – 17.00

Chair: Keith Bemer

Computation of Lunar Eclipse in Indian Astronomy

Dinesh Mohan Joshi

Early Greek Mathematics and Thales Geometry: A Plausible Reinstatement

Dimitrios Patsopoulos

Susruta: The Sage-surgeon of Ancient India & His Surgical Instruments

Amarnath Thakur

Greek Paradoxography: The Beginning of Popular Science in the Hellenistic World, between Entertainment and Social Prestige

Irene Pajón Leyra

Tuesday, 28 July, 17.30 – 19.30

Chair: Irene Pajón Leyra

The Three- and Four-line Locus in Apollonius's CONICA: Geometry and Algebra

Sabetai Unguru, Michael N. Fried

Analysis and Discovery: The Babylonian Mathematics in the Light of the Euclidean Data

Piedad Yuste

Indian Astronomy and Inscriptions

Subbarayappa V. Bidare

T03 Arabic and Islamic World

Room: C1

Wednesday, 29 July, 09.00 – 11.00

Chair: Mohammad Bagheri

View on the Classification of Animals by Al-Jāhiz (776-868)

Meyssa Ben Saad

The Correlation between Local Culture & Public Spaces along the History of Islamic Cities (Case Study, Loft Port, Qeshm Island)

Mehri Mohebbi, Amir Saeed Mahmoodi

Trees of Knowledge: Generic Templates for Al-Farabi's "Enumeration"

Lydia S.M. Wilson

The Experimental and Instrumental Contexts of Early Arabic Optics

Elaheh Kheirandish

Wednesday, 29 July, 11.30 – 13.30

Chair: Mohammad Bagheri

Combinatorial Problems on Chessboard from 11th Century Iran

Mohammad Bāgheri

Ghāzān Khān's Innovations of the Astronomical Instruments

Seyyed Mohammad Muzaffari, Georg H. Zotti

A Comparison between the Optical Doctrines of Ibn al-Haytham (Alhazen) and Ibn Sīna (Avicenna) by Kamāl al-Dīn al-Fārisī

Maryam Farahmand

Traces of Mathematical Historiography in Islamic Mathematical Works

Younes Karamati

Thursday, 30 July, 15.00 – 17.00

Chair: Mohammad Bagheri

Texts, Instruments and Learning in the 14th Century Maghrib. The Sine Quadrant as a Didactical Resource.

Maravillas Aguiar Aguilar

Prediction via Numbers and Letters

Hosein Roohoullahi

A Comparative Study of Qutb al-dīn Shīrāzī's Models on the Configuration of the Outer Planets

Kaveh F. Niazi

Planetary Model of Qutb al-Din Shirazi for Superior Planets

Amir Mohammad Gamini

Thursday, 30 July, 17.30 – 19.30

Chair: Mohammad Bagheri

The Integration of Philosophy, Logic, and Exact Observation in Laboudy's Medical Investigations

Tarek Adnan Ahmed

Linear Astrolabe according to Its Inventor

Sajjad Nikfahm Khybravan

A History of Precise Calculations in Exact Sciences: Ancient and Medieval Times

Fateme Savadi

Friday, 31 July, 11.30 – 13.30

Chair: Mohammad Bagheri

Mukanna "Moon Maker": Discoverer of Mercury Telescope?

Abasali A. Rustamov

Stairway to Heaven or Sullam-al-Sama of Kashi

Farhad Rahimi

T04 South Asia and India

Room: A11

Tuesday, 28 July, 11.30 – 13.30

Chair: Michael A. Cremo

The History and Prospects of Bangladesh to India Natural Gas Pipeline Project

Md. Mamunur Rashid

Perceptions of Western Techno-Scientific Progress: Karim Khan Mushtaq Jhajjari – a Visitor to Britain (1840-41)

Gulfishan Khan

Role of Technical Thoughts in Social Context

Ugrasen Pandey

On the History of Brahmagupta's Mathematics and Its Transmission to Arab Countries

Rabindra Kumar Bhattacharyya

Tuesday, 28 July, 15.00 – 17.00

Chair: Katalin Munkácsy

Planning and Technology for National Reconstruction, the NPC Initiative in Colonial India

Jagdish N. Sinha

Time to Change and Unchanging Time – Modernity, Colonialism and the Native Calendar Reform in Late Nineteenth Century Tamil Nadu

Venkateswaran Thathamangalam Viswanathan

Rewriting the History of Indian Archeology

Michael A. Cremo

Concept of Sunya in the Indian Antiquity

Parthasarathi Mukhopadhyay

Ideas and Instruments: The Indian Contribution

K.S. Murty

Tuesday, 28 July, 17.30 – 19.30

Chair: Katalin Munkácsy

Jesuit Contribution in Science Education, Research and Popularisation in Bengal (India) During the Late 19th Century

Subhankar Ghosh

Saltpetre Manufacture Technology in Medieval India

Ishrat Alam

The Lessons of Millenary Water Use in the Ancient Israeli Kingdom (VIII BC– II BC)

Olga A. Aleksandrovskaia, V.A. Shamis

T05 East Asia

Room: C5

Friday, 31 July, 11.30 – 13.30

Chair: Erich Pauer

The Jiudian Bamboo Slips and the Space and Time Correlations of the Yin and Yang Concepts

Sándor P. Szabó

The Beginning of Wasan: Mathematical Practices with Disparities

Marion Cousin

Continuing Joseph Needham's Traces of the "Great Extension Number": The Origin of the "Great Extension Mathematics" (Indeterminate Analysis) in China

Honghai Deng

The Organization of Technical Knowledge Transfer on the Eve of Japan's Industrial Revolution

Erich Pauer

Friday, 31 July, 15.00 – 17.00

Chair: Yuqun Liao

Change in Meaning or Style of the Knowledge: Diversification of Equipments in Acupuncture Research in Contemporary China

Yan-Hong Huang

Introduction of the Understanding and Practice Course of Managerial Psychology in China in the 20th Century

Kang Xu, Chao He

The Main Characters of the Traditional Chinese Medicine

Yuqun Liao

The Meaning of Solar Eclipse for the Ancient Chinese Based on the "Jing Jian Nei Zhi" Text from the Chu Bamboo Slips Collection of the Shanghai Museum

András Márk Szekeres

Friday, 31 July, 17.30 – 19.30

Chair: Hsiu-fen Chen

Engendering Emotions: Women's Melancholy in 16th-17th Century Chinese Medicine

Hsiu-Fen Chen

Election of Members of the Second Research Council of Academia Sinica and Its Impact in 1940

Jinhai Guo

Development of Botany in Republican China (1912-1949) – A Bibliometrics Analysis

Ang Li

An Analysis on the Debate of the Concept of "Mass-Energy"

Yan-Feng Wang

Good Fortune or Environmental Harmony?

Michael J. Paton

Soviet Experts and Chinese Air Force Education (1949-1960)

Yang Aihua

The Study of Relation between Science and Public in China Westlake Expo 1929

Zhengwei Li, Yadong Shi

T07 The Middle Ages (Western and Byzantine) and Renaissance

Room: A8

Thursday, 30 July, 15.00 – 17.00

Chair: István Draskóczy

Faith or Knowledge? Normative Relations between Religion and Science in Two Byzantine Texts.

Gianna Katsiampoura

Explanations of the Plague in the Late Middle Ages

Otto S. Gecser

Literature and Astronomy in Sacrobosco's Tractatus de Sphaera and Computus Ecclesiasticus

Roberto de Andrade Martins

On the Semiotic Processes that Enabled Bombelli's L'algebra

Roy Wagner

Thursday, 30 July, 17.30 – 19.30

Chair: Roy Wagner

Child Health during the Medieval Ages in Islamic World

Abdul Nasser Kaadan

Byzantine Astrolabes and the Construction of Greek Authority in 16th-Century Europe

Darin Hayton

Mathematics and Venetian Naval Architecture: An Analysis of the Geometrical Methods in Ship Design Used from the 14th to the 17th Century

Lilia Campana, Mauro Bondioli

The Cisterna Fulcronica: What Can We Learn from a 16th Century Occitan Treatise of Arithmetics?

Annie Michel-Pajus

Friday, 31 July, 11.30 – 13.30

Chair: Benedek Varga

Science and Translation in the 15th Century Europe. The Latin Texts on the Sexagenarium by Johannes Bonie and Christianus de Prolianus.

José A. González Marrero, Maravillas Aguiar Aguilar

**Magic and Technology in Early Italian Renaissance: Automata in Boiardo's "Orlando
Innamorato"**

Nadia Ambrosetti

**From Abulcasis to Guy de Chauliac – The History of the Surgery in Europe in the
Middle Ages**

Erzsébet Igari

**The Sense of Hearing and the Reconsideration of the Practical Sciences in Roger
Bacon**

Yael Raizman-Kedar

Friday, 31 July, 15.00 – 17.00

Chair: Darin Hayton

Horoscopes as Biographies in the Renaissance

Dóra Bobory

**The Late Medieval Salt Mining and the Technical Questions of Salt Transport in
Hungary**

István Draskóczy

**T08-01 Mathematics and Mechanics in the Classical Period (1543-
1800)**

Room: C5

Saturday, 1 August, 09.00 – 11.00

Chair: János Tanács

**The Problem of Parallels in its Social Context: The Political, Religious and
Educational Circumstances of the Hungarian Kingdom at the End of the 18th
Century**

János Tanács

**The Problem of Conflict and Exchange of Knowledge: The Case of the Revolution in
Ballistics in 18th Century Europe**

Toru Tajima

**Do Not Lump Everything Together. The Failure of the Philosophical Model, the
Success of the Mathematical one in Mechanics in the Classical Period.**

Fabio Zanin

**John Theophilus Desaguliers: A Newtonian between the Patronage and the Market
Relations**

Luiz Carlos Soares

Saturday, 1 August, 11.30 – 13.30

Chair: János Tanács

The Early Years of Gresham College, London

Robin Wilson

L'équilibre des Sons: La Musique et les Mécaniques chez Marin Mersenne

Paulo T. Silva

The Concept of Speed by Descartes

Gyula Kistüttösi

Euler's Cartographical Works and Occurrence of Differential Geometry in XVIII Century

Inessa I.V. Ignatushina

Saturday, 1 August, 15.00 – 17.00

Chair: Petr E. Levkovsky

Pedro Giannini (fl. 1773-1800)

Juan M. Navarro-Loidi

Jacopo Riccati's Research on Differential Equations

Silvia Mazzone

Johann Bernoulli's Research on Mechanics

Satoshi Nozawa

Charles Bossut, an Outstanding French Mechanic and Mathematician of the XVIII Century

Petr E. Levkovsky, Vadim I. Yakovlev

Saturday, 1 August, 17.30 – 19.30

Chair: Katalin Munkácsy

Mathematical Education in Walachia, Moldavia and Transylvania in the 18th Century. European Mobility of Highly Cultivated People.

Eufrosina Otlacan, Romulus-Petru Otlacan

The Decimalization of Traditional Oral Numeration Systems across Languages and Culture: A Diachronic and Synchronic Overview

Dominique A. Vellard

T08-02 Physics and Astronomy in the Classical Period (1543-1800)

Room: A11

Wednesday, 29 July, 09.00 – 11.00

Chair: Péter Szegedi

The Astronomical Observations, Hypothesis, and Demonstrations in Chongzhen Lishu

Kehui Deng

Tycho Brahe and Kepler in Prague: Multifold Reflections on Astronomy

Manolis K. Kartsonakis

Notes on Johannes Kepler's Book "Harmonice Mundi"

Marina V. Voinova

Astronomy and Optics: the Development of the Optics of Moving Bodies

Arnaud Mayrague

Wednesday, 29 July, 11.30 – 13.30

Chair: Lila Rakoczy

Georg Markgraf in Dutch Brazil: His Pioneering Astronomical Activities in the New World

Oscar T. Matsuura

Isaac Newton: The Exoteric and Esoteric Knowledge of the Principia

Tessa Morrison

Transformation of Proposition VII in Book I of Newton's Principia with Special Reference to the Adjoining Figures

Takeshi Sugimoto

Stars, Births, and Kings: Astrophysics and Mythmaking in Seventeenth-century England

Lila Rakoczy, Martin Lunn

Wednesday, 29 July, 15.00 – 17.00

Chair: Tessa Morrison

Analogies of Sound and Light in the Scientific Writings of Athanasius Kircher

Oona Leganovic

The Status of the Milky Way in William Herschel's Work and How did Science Historians of the Nineteenth Century Focus the Question.

Victória Flório Pires de Andrade

**T08-05 Biological and Medical Sciences in the Classical Period
(1543-1800)**

Room: A10

Thursday, 30 July, 15.00 – 17.00

Chair: Margaret E. Carlyle

How Aldrovandi Read, and Looked at, His Lycosthenes: Reading Practices, Images, and the Persistence of Knowledge in Sixteenth-century Natural History

Fabian Krämer

The Medical Library of the Secretary of the King of Sweden: Henrik Matsson Huggut (ca. 1540-1617): Authors from the Antiquity to the Renaissance

Terhi Kiiskinen

Midwives Modelling Mannequins: Obstetrical Machinery and Medical Knowledge in the French Enlightenment

Margaret E. Carlyle

Anatomy and Its Artefacts: Visualising the Body in the Eighteenth Century

Lucia Dacome

Thursday, 30 July, 17.30 – 19.30

Chair: Nuria Pérez-Pérez

Instrumental Use of Experimental Physics in Medicine at the Royal College of Surgery of Barcelona (1760-1843)

Nuria Pérez-Pérez

El Conocimiento Científico De La Naturaleza. El Saber Médico En Los Remedios Populares En El Yucatan Del Siglo XVII

Pedro Miranda Ojeda, Genny M. Negroe Sierra

Giovanni Borelli (1608-79) on Animal Movement

Jarmo Pulkkinen

T08-06 Technology and Engineering in the Classical Period (1543-1800)

Room: A6

Saturday, 1 August, 17.30 – 19.30

Chair: Robert Fox

Technology and Engineering in the Council House Tower of Medieval Brasov
Viorel Ene, Tibor Bedő, Marius Bența

Port Engineering in the 17th Century. Construction Innovations and Later Developments.

Sandro Stura, Erminio Raiteri, Giulio Scarsi, Sandro Stura

Acoustique Physique et Procédés Techniques aux XVIIème et XVIIIème Siècles
François Baskevitch

Euler Meets Dutch Windmills: an Intersection between Mathematics and Experimental Philosophy in the 18th Century

Satoshi Nakazawa

Wolfgang von Kempelen – A Master of Engineering in the Age of Enlightenment
Alice Reininger

T09-01 Mathematics in the Contemporary Period (1800-)

Room: A10

Wednesday, 29 July, 09.00 – 11.00

Chair: Josipa G. Petrunic

Kolmogorov Program on Foundations of Mathematics

Alexander S. Kuzichev

Kazimierz Żorawski, his Work and the Creation of the Cracow Mathematical School
Zdzisław Pogoda

Quaternion Engagements and Terrains of Knowledge (1858-1880): A Comparative Social History of Peter Guthrie Tait and William Kingdon Clifford

Josipa G. Petrunic

One or More Definitions of Number in Gottlob Frege's Papers?

Gabriela Besler

Wednesday, 29 July, 11.30 – 13.30

Chair: Péter Gábor Szabó

The Emergence of Fractional Calculus

Luisa F. Vargas Jimenez

From a Measure Theory to a Theory of Measures

Carmen Martinez Adame

The Riesz Brothers's Correspondence

Péter Gábor Szabó

The Baire Class and the Surgimiento of the Theory of Functions

Luis Recalde

Wednesday, 29 July, 15.00 – 17.00

Chair: Christian Gerini

La «Mémoire sur les Méthodes Générales d'Intégration» de Joaquim Gomes de Souza (1829-1864)

Marcos Vieira Teixeira

Les Commencements de la Science Statistique à l'Espagne et Portugal

Gabriela M. Fernández Barberis, M. Carmen Escribano Ródenas

Le Père de la Recherche Opérationnelle en Espagne: Sixto Ríos García

M. Carmen Escribano Ródenas, Ana I. Busto Caballero

La Mixité du Philosophique et du Mathématique au Début du 19ème Siècle: J.-B.-E. Du Bourguet et ses Traités de Calcul Différentiel et Intégral (1810).

*Christian Gerini**

Wednesday, 29 July, 17.30 – 19.30

Chair: Katalin Munkácsy

Is Science Discovering Nature or “Vice Versa”?

Jasna Fempl Madjarevic

Vaclav Simerka-mathematician, Teacher, Priest

Karel Lepka

Des Ponts Entre L'est et L'ouest: Variations Austro-hongroises, Pétersbourgeoises et Königsbourgeoises

Norbert Verdier

T09-02 Physics and Astronomy in the Contemporary Period (1800-)

Room: A12

Wednesday, 29 July, 15.00 – 17.00

Chair: Péter Szegedi

Thomson versus Clausius: What is the Share of Each One in the Creation of the 2nd Law of Thermodynamics?

Mayane L. Nobrega, Suani T.R. Pinho

A History of Entropy through Various Methods

Eri Yagi, Rika T. Okamoto

La Réception Française de la Théorie Cinétique des Gaz

João P. Principe

The Relationship between Gibbs' Theory of Thermodynamics and that of Statistical Mechanics

Hajime Inaba

Wednesday, 29 July, 17.30 – 19.30

Chair: Ricardo L. Coelho

On Hertz's Principles of Mechanics

Ricardo L. Coelho

Hertz's Experiments on Electromagnetic Waves from Modern Retrospective: Serious Indications on Incomplete Approach

Roman Smirnov-Rueda, Alexandr Kholmetskii, Oleg Missevitch

Interaction of Experimental Programs: The Development of Experimental Research on Thermal Radiation in Germany at the End of the 19th Century

Daisuke Konagaya

Piazzzi Smyth's mapping of the solar spectrum in Lisbon, Sintra and Madeira: analysis of results and instruments

Fernanda M. Costa, Isabel M. Peres, Maria E. Jardim

Thursday, 30 July, 15.00 – 17.00

Chair: Matthew Stanley

Past as Prediction: Victorian Scientists on Ancient Eclipses and the Power of Science

Matthew Stanley

The Road to the West Goes South. International Exchange in Astronomy in the Early 20th Century

David M. Baneke

Danjon and French Astronomy during the Second Part of the 20th Century

Suzanne Débarbat

The Aether Drag Experiment in Three Different Contexts: Fizeau (1851), Michelson and Morley (1886), and Zeeman (1914)

Roberto A. Pimentel, Carlos B. G. Koehler, Carlos E. Fellows

Thursday, 30 July, 17.30 – 19.30

Chair: Helge Kragh

Fringe Cosmo-(a)-gonies : French and British “Cosmogonists” Facing Scientific Standardization

Volny Fages

The Revival of the Oscillating Universe

Helge Kragh

About a New Periodisation of the History of Neutrino and Weak Interactions from the Discovery of β -radioactivity up to the Solution of Solar Neutrino puzzle (SUDBURY, KamLAND)

Tibor Toro

Looking through the Microscope in the Context of Vienna Indeterminism – On a Local Way to Conceptualize Brownian Motion

Michael Stoeltzner

Friday, 31 July, 11.30 – 13.30

Chair: Arcangelo Rossi

Jun Ishiwara as a Forerunner of Bose on Statistics, de Broglie on Phase-Wave, and Einstein on Quantum Condition

Seiya Abiko

Compton's Large Electron as an Example of His Classical Approach to X Ray Scattering

Indianara L. Silva, Ana Paula Bispo. Silva

The Foundational Side of Italian Physics in the First Half of the XX Century

Arcangelo Rossi

**Researches and Studies in Mathematical Non-classical Physics (Quantum; Relativist)
Achieved in the Period cca. 1900 – cca. 1939/1940 by Scientists from Carpathean-
Danubean-Pontean / Romanian / Space**

Liviu Alexandru Sofonea, Elena Helerea, Sofia Hagia, Horia Salca

Friday, 31 July, 15.00 – 17.00

Chair: Juraj Šebesta

**Contributions to Analyse of Life and Work of any Hungarian Origine Scientitits From
Former Austro-Hungariyn Monarchy**

Huba Laszlo Szoeacs

N.N. Bogoliubov – The Great Scientist and Humanist of XX Century

Olga N. Golubjewa, László L. Jenkovszky, Aleksandr Dmitrievich Sukhanov

Principles of Physical Theories – Past and Present

Juraj Šebesta

**Casimir Effect, the Spread of Research on it, and the Quantum Vacuum Ontology
From 1948 to 1975**

Thiago H. Maia, Reinaldo F. de Melo e Souza

T09-03 Earth Sciences in the Contemporary Period (1800-)

Room: A11

Saturday, 1 August, 09.00 – 11.00

Chair: H. Torrens

**The Social Aspects of Natural-science World Outlook and the Evolution of the Ideas
about the Age of the Earth**

S.Kh. Maghidov

Two Centuries of Oil Industry of Chechen Republic

Ibragim Akhmedovich Kerimov

**Forgotten Colonial Seismology: The Introduction of Instrumental Seismology in the
Philippine Islands (1865-1910)**

Josep Batlló

**Changes in State Directed Assessment and the Role of 'Conclusive Evidence': The
NYS HS Earth Science Regents Exam Replaces 'Polar Wandering' with 'Plate
Tectonics' as the Accepted Explanatory Theory for Observed Macro-Crustal Changes**

Michael D. Sunderland

Saturday, 1 August, 11.30 – 13.30

Chair: H. Torrens

Geothermal Heat Flow as a Problem: The History of Observations and Theories

Alexander Nicolai Zemtsov

**The Trails of Roman Symonowicz' Mineralogical Travel (1803) to Transylvania
(Ziemia Siedmiogrodzka)**

Algimantas Grigelis

To the History of Water Supply in Moscow

Nadezhda Ozerova

The Search of Gold in America in XVI Century – The Combination of Knowledge and Experience of Nations

Jury Mihajlovich Bazhenov

Saturday, 1 August, 15.00 – 17.00

Chair: Károly Brezsnýánszky

History of the Meteorological Observation in Buda(Pest) Since 1781

Zoltan A. Dunkel

The First Detailed Geological Map of the Polish Kingdom's Coal Basin (1856)

Andrzej J. Wojcik

T09-04 Chemistry in the Contemporary Period (1800-)

Room: B2

Friday, 31 July, 11.30 – 13.30

Chair: Andres L. Lundgren

The Relationship between Chemistry and Alchemy in the Age of the Enlightenment

Halina Lichočka

The Mineral Chemistry Laboratory of the Polytechnic School of Lisbon

Maria Elisa Maia

The Problematic Accommodation of the Rare Earth Elements in the Periodic Table from 1869 to 1913

Pieter Thyssen

Study of Water-ethanol Systems from Dmitriy Mendeleev to Nowadays

Svetlana Patsaeva, Vera Z. Grigorieva

Friday, 31 July, 15.00 – 17.00

Chair: Halina Lichočka

To Do Research with Nose and Tongue: Some Reflections on the Role of Smell and Taste in the History of Chemistry

L Anders Lundgren

The 50th Anniversary of the Heyrovský's Nobel Prize

Jiří Jindra

The Same Discipline in Different Places: Electrochemistry in Spain in the First Third of XXth Century

Angel Toca

Contribution of Russian Chemists to Development of Russian Spirit and Vodka Production Industry in the 19th and the Early 20th Century

Vera Z. Grigorieva, Svetlana Patsaeva

The Development of Macromolecular Chemistry in Belgium and His Contribution to It in the International Polymer Chemistry Community

Ali Gharib

Controversies on the Nature of Caloric in the Greek-speaking Journal Hermes the Scholar, at the Turn of the Nineteenth Century

Efthymios Bokaris

T09-05 Biological Sciences in the Contemporary Period (1800-)

Room: A12

Tuesday, 28 July, 11.30 – 13.30

Chair: Miklós Müller

Advances in Modern Biology Can Be Accelerated by Meaningful Crosstalk between Physicists and Biologists

Sukhendu B. Dev

Ervin Bauer and General Biology in the All-Union Institute of Experimental Medicine: Rise and Fall of a Major Soviet Laboratory

Miklós Müller, Gábor Elek, Sergey S. Zhebrovsky

Russian Biologists at the Mediterranean. Second Part of the 19th – the Beginning of 20th Centuries.

Sergei I. Fokin

Between Science and Technology: The Catalan Structuralist School, the Nucleohistone Structure and the Development of X-Ray Diffraction Cameras

Francesc-Xavier Calvó-Monreal

Tuesday, 28 July, 15.00 – 17.00

Chair: Janina Wellmann

Affiliation and Collaboration Networks in the Biomedical Sciences in Portugal in the Inter-war Period (1920-1940)

José Pedro Sousa-Dias, Ricardo S.R. Santos

Critical Thinking: Historical Perspective and Present Situation in Turkey

Melih Tumuçin

Embryology Takes Form. Christian Heinrich Pander, Karl Ernst von Baer and the Concept of the Embryological Fold.

Janina Wellmann

History of National Institute of Genetics in Japan

Hajime Mizoguchi

Tuesday, 28 July, 17.30 – 19.30

Chair: Miguel Garcia-Sancho

Edward Janczewski's Work on Monographie des Groseilliers, a Monograph on Genus Ribes (1907)

Kamil Kulpinski

Historiographical Issues in the Introduction of Protein Sequencing into Spanish Biomedical Research, 1970-1990

Miguel Garcia-Sancho

The Significance of Science Instruments in the Research Progress and Development Plant Physiology in Nineteenth Century. Research Instruments of Polish Scientist Emil Godlewski Senior (1847-1930)

Izabela Krzeptowska-Moszkowicz

Polish Botanical and Mycological Research in Terrestrial Ecosystems of Antarctica Since 1977

Piotr Köhler

Wednesday, 29 July, 09.00 – 11.00

Chair: Tomohisa Sumida

Lithuanian Space Plant Biology Researches in 1975–1990

Aurika Ričkienė

Comparative Anatomy, the Chain of Beings, and French Zoology after Lamarck

Emmanuel D'Hombres

Ecological Science and Nature Conservation in Japan 1906 – 1975: Focusing on Two Transitions in 1959

Tomohisa Sumida

Early Apparatus-based Experimental Psychology

Maximilian Wontorra, Ingrid Kästner, Erich Schröger

Wednesday, 29 July, 11.30 – 13.30

Chair: Jakov Dulčić

Brief History of Ichthyology in Croatia

Jakov Dulčić

Electrography of Living Systems or So-called Kirlian Photography, Reconstruction of Historical Fairness and Present Potential

Olga A. Gaponenko, S. Raikov

The Finnish Tradition of Developmental Biology

Anto Leikola

Morgan's Change of View on Evolution, 1903-1932

Lilian Al-Chueyr Pereira Martins

T09-06 Medicine in the Contemporary Period (1800-)

Room: A1

Tuesday, 28 July, 11.30 – 13.30

Chair: Claude Debru

Laboratories at the Medicine Faculty of Coimbra University in the XIX Century

Maria Carvalho Burguete

The Appliance of Science? The Laboratory and Clinic in Early-twentieth-century Scottish Psychiatry

Gayle L. Davis

Personnel Monitoring and Evaluation Dosimetry

Anthony K. Shadrack

Ramon y Cajal and the Law of the Dynamic Polarisation of the Neuron

José Luis González Recio, Francisco José Serrano Bosquet

Tuesday, 28 July, 15.00 – 17.00

Chair: Benedek Varga

The Development of Pharmaceutical Industry in Serbia

Irena Mandić, Dusanka Krajinović

Historical Development of the Emergency Medicine in Turkey

Ozgun Tatli

Medical Science in XIX Century in Georgia and its Social-Cultural Framework

Nino Chikhladze, Ramaz Shengelia, Nato Pitskhelauri

Aspirations and Conflicts: The 'Professionalisation' of Medicine in Colonial Banaras

Madhuri Sharma

Tuesday, 28 July, 17.30 – 19.30

Chair: József Honti

Odessa City Hospital (the 1st Century of Activities)

Svitlana Ruda

Serotherapy and Modernity in Turn-of-the-century Paris

Jonathan Simon

Computer Tomography Scanner: A Revolutionary Instrument

Mei Zhou

New Medical Ideas in Old History of Medicine

Nato Pitskhelauri

Wednesday, 29 July, 09.00 – 11.00

Chair: Maria Carvalho Burguete

Language, Information, Instruments and Medical Treatment – The Medical Assessment by Japanese Doctors at the Beginning of the Meiji Era, Japan

Miyoko Tsukisawa

Cut up and Imaged: Late 19th-century Representations of the Cortex

Heini Hakosalo

Chinese Medicine and Western Medicine on the Way of Scientific Advances and Integration.

Yulia Petrovna Chukova

A Quest for the 'Modern': Localizing versus Universalizing Knowledge

EunJeong Ma

Wednesday, 29 July, 11.30 – 13.30

Chair: Dénes Karasszon

Wagner-Jauregg and the Heredity of Mental Illness. On Special Features of the Viennese Research Programme in Psychiatric Genetics in the First Half of the 20th Century.

Veronika Hofer

US 'Shopping List' of Human Experimentation Data Presented by Former Japanese B.W. Units, Ishii Organization

Keiichi Tsuneishi

La Circulation d'Idées Scientifiques: Une "Assemblage de Liens" dans les Premières Revues Médicales de São Paulo

Márcia Regina Barros da Silva

L'Appareil Enregistreur Générale de François-Franck (1849-1921)

Liborio Dibattista

T09-07 Technology in the Contemporary Period (1800-)

Room: A6

Tuesday, 28 July, 11.30 – 13.30

Chair: Alexandre Herlea

Micro-alloying in Early Iron Age: A Case Study from Badmal, Orissa

Pradeep K Behera, Subhayu Chattopadhyay, Prasanta K. Datta

Making of Sound Recording in Late XIX Century and Modern Problems of Restoration and Preservation of Old Audio Media

Roman V. Artemenko

Development Trend and Results of Industry in the Era of the Dual Monarchy of Austria-Hungary

Zsuzsanna Bognár

The Ways of Searching “Rusalka” Coast Guard Battleship (1893-1894)

Vladimir O. Chikin

Tuesday, 28 July, 15.00 – 17.00

Chair: Alex Keller

270 Years of Lightning: A Historical Review

Javier Lopez-Herrera, David de la Vega, María de las Mercedes Maruri

Large Infrastructural Systems in the Extreme North: Learning from the Build-up of Water- and Wastewater Systems and Railway Electrification in Sweden

Kristina Söderholm, Roine Wiklund

The Complexity of the Concept Materia Technika

Elena I. Helerea, Liviu Alexandru Sofonea, Laura Rab, Daniel Calin

Evolution of e-Books in Turkey and in the World

Sakine Sensoy-Ongoz, Adnan Baki

Wireless Phone in Szombathely at the Turn of the 19th and 20th Centuries

József Nemes

T09-08 Engineering in the Contemporary Period (1800-)

Room: A13

Saturday, 1 August, 17.30 – 19.30

Chair: Zoltán Galántai

Caloric Theory and Watt’s Law: High Hopes for the High Pressure Steam Engine in the Early 19th Century

Manabu Kobayashi

The International Context of the Technological Changes of the Slovak Power Engineering Base in the First Half of the 20th Century

Miroslav Sabol, Ludovit Hallon

From LEDs to Solid-state White Lighting Devices, Another Semiconductor Revolution

Vasilica Schiopu, Ileana Cernica, Alina Matei

Engineers and Conservatives in the Creation of State Hydroelectric Power in Canada

Langins Janis

**T09-09 Space Exploration and Research in the Contemporary
Period (1800-)**

Room: C2

Friday, 31 July, 17.30 – 19.30

Chair: Attila Szabó T.

Hubble Space Telescope's Several Lives and Unexpected Career

Joseph N. Tatarewicz

**"The Social Life of Spacecraft": Instruments, Ideas, and Investigators on
Interplanetary Robotic Missions, 1970-2008**

Janet Vértesi

Space Exploration and Research in the Contemporary Period

Ven. Dharmananda Shraman

**The Three Heroes of Spaceflight: The Rise of the Tsiolkovsky-Goddard-Oberth
Interpretation and its Current Validity**

Michael J. Neufeld

**T09-10 Computing Sciences and the Internet in the Contemporary
Period (1800-)**

Room: A9

Saturday, 1 August, 09.00 – 11.00

Chair: Bálint Dömölki

The First Hungarian Electronic (Tube) Computer – the M-3 – is 50 Years Old

Győző Kovács

The Cultural History of Character Encoding

Daniel L. Golden

The Social Construction of Computers Aided by Social Network Analysis

Éva Borbély

Searching Methods in Artificial Intelligence

Angel Garrido

History of Computer Science in Russia

Yakov I. Fet

T09-11 Geography in the Contemporary Period (1800-)

Room: A11

Saturday, 1 August, 17.30 – 19.30

Chair: Alexey Postnikov

**Paper Fortresses: Renaissance Military Architecture in the Context of Hapsburg
Cartography**

Zsolt G. Török

**Experience and Rhetoric in Sixteenth Century Spanish Atlantic Cartography: Utility
and Conformity in Double Graduation Charts**

Antonio Sánchez

Perception of Geographical Features and the General Concept of "Shui-kou" in the Feng-Shui Thought of East Asia

Shizuaki Shibuya

The English and Americans in the Eastern Siberia and the Russian Far East (Nineteenth - Early Twentieth Centuries): On History of Geographical Exploration and Geopolitics Dreams

Alexey Postnikov

T09-12 Social Sciences in the Contemporary Period (1800-)

Room: C3

Wednesday, 29 July, 15.00 – 17.00

Chair: Jenny Bangham

Option Pricing Theory and the Construction of Mathematical Finance in the 1970s: an Idea, Instruments and a Context

Ghislaine Idabouk

On the Threshold of Modernity. Alva and Gunnar Myrdal vs. Eli and Ebba Heckscher on the Subject of Science and Social Welfare.

Ylva J.E. Hasselberg

Epistemological Conditions for a Successful Transfer of Policy Relevant Knowledge: A Lesson from the History of Central Banking

Arie Krampf

Helmholtz Resonators and the Mechanistic Revolution in Psychology

Zuraya Monroy-Nasr

Wednesday, 29 July, 17.30 – 19.30

Chair: Arie Krampf

Hungarian-Chuvash Economic and Cultural Contacts in the Current Context

Marina Grigoryeva

The Evolution of Man in the Late Nineteenth Century: Darwinism and the History of Human Marriage

Jenny Bangham

T09-13 Natural History in the Contemporary Period (1800-)

Room: A16

Saturday, 1 August, 09.00 – 11.00

Chair: Adriana T. do A. Martins Keuller

Sir Robert Schomburgk's Biodiversity Science Legacy in Guyana

John Cartey Caesar

Emergency of the Mexican Physical Anthropology in 19th Century, within the Context of the European Imperialistic Expansion

Miguel Garcia Murcia

Zoology in the Library of Martorell Museum of Natural Sciences of Barcelona, since 1882 to 1915

Jose J. Varela Restrepo

The Anthropology Laboratory at the National Museum of Rio de Janeiro (1909-1935)

Adriana T. do A. Martins Keuller

Saturday, 1 August, 11.30 – 13.30

Chair: Ewa Kaczmarzyk

Seeing Past Specific Behaviors: Classical Ethology's Failure

Jean-Sébastien Bolduc

Floristic Research of the Częstochowa Upland (Poland) between the Middle of the 19th Century and the End of the First World War

Ewa Kaczmarzyk

T09-14 Environmental Studies in the Contemporary Period (1800-)

Room: A6 *

Friday, 31 July, 11.30 – 13.30

Chair: Libby Robin

A History of Resilience Science. From Rangeland Ecology to Global Change 1973-2008.

Libby Robin

Sustainable Development on Community Livestock. A Case of North Eastern Province, Kenya.

Gordon Nyabade

La Crise Environnementale Globale et la Nouvelle Dynamique du Développement dans des Régions Périphériques

Marcionila Fernandes

The Teleconnection between Sea Surface Temperature Analysis from in Situ Data at East Mole, Lagos and Global Warming

Okuku Archibong Eding

Friday, 31 July, 15.00 – 17.00

Chair: Baisakhi Bandyopadhyay

A Study of the History of Environmental Science in Social Context in the First Half of Twentieth Century

Baisakhi Bandyopadhyay

Historical Ozone Measurements Made in the Habsburg Empire

Tamas Weidinger, Joseph Pinto, Gyorgyi Baranka, Anett Ivady

Ancient Waterways and Hydrotechnical Constructions of the European Part of Russia (Historical and Ecological Aspects)

Vera A. Shirokova, Vassili M. Chesnov

T10 International Scientific Exchange

Room: A6

Friday, 31 July, 17.30 – 19.30

Chair: László Szögi

The Research on Radioactivity in Portugal and the Institut Curie du Radium

Isabel M Serra

The Moscow Colloquium on Electroencephalography of Higher Nervous Activity (1958) and Its Impact on International Brain Research

Boleslav L. Lichterman

Conservation Science in Context: Humphry Davy and the Herculaneum Papyri

Frank A.J.L. James

The International Commission on Mathematical Instruction. The Italian Contribution from the Founding to the 1950s.

Livia Giacardi

Saturday, 1 August, 09.00 – 11.00

Chair: Isabel Serra

The Brazil-Germany Relations in the Context of Psychiatry

Cristiana Facchinetti

International Eugenics: Reexamining the Relationship between British and German Eugenicists prior to the Second World War

Bradley W. Hart

T11 Scientific and Technical Museums

Room: A3

Saturday, 1 August, 11.30 – 13.30

Chair: Elisabeth Kóczyán-Szentpéteri

A Collections Development Strategy: Selecting Artifacts for the Interpretation of Canadian Agricultural Science and Technology

Franz M. Klingender

National Technical Museum in Prague for the Future: Reconstruction of Historical Buildings and New Exhibitions, the Architectural Heritage Centre

Ivana Lorencova

The Research and Public Diffusion of Science and Technology in the Museums

Myriam Garcia, Belen Laspra

Saturday, 1 August, 15.00 – 17.00

Chair: Judit Berta-Varga

Early History of the Geological Museum of China: Witness of the Early Development of Geological Work in China

Xiping Cao, Erping Zhang

Science and Technology Museum and Archives – A Joint Study of Funds for Obtaining New Information

Yuriy Ivanovich Krivonosov

Engines and Society: Museological Interpretation of Industrial Heritage

Joan Muñoz Vicente, Santiago Vallmitjana

Table Top Physics: Old Science, New Audience

Jane Wess

Reference to Science in the Life-Stories of Senior Chinese Medicine Practitioners in the PRC

Lena Springer

Sentimental Education in Scientific Terms

Angelika C. Messner

Meanings of 'Becoming Scientific' in Republican and Early Communist China

Bridie Andrews Minehan

S58 Iron Curtains and Immaterial Instruments – The Circulation of Software and Computer Science in Cold War Europe

Organisers: Gerard Alberts, Maria Bardosova, Helena Durnova, Thomas Misa

Room: A10

Tuesday, 28 July, 11.30 – 13.30

Chair: Maria Bardosova

The Feedback of Fear: American and Soviet (Mis)Perceptions of the Other Side's Cybernetics Agenda

Slava Gerovitch

Computing in Russia Before and After 1991

Paul Josephson

When the Iron Curtain Leaked: Tracking Eastern European and Soviet Influences upon Belgian Computing History

Sandra C.M. Mols, Marie D'Udekem-Gevers

Jacek Karpinski – A Polish Bill Gates?

Izabela Bondecka-Krzykowska, Anna Ren-Kurc, Marlena Solak

Tuesday, 28 July, 15.00 – 17.00

Chair: Thomas J. Misa

Vladimir Vand and Scientific Computing

Alena Šolcová, Michal Krížek

Seeing Like a State? The "Functional Programming Systems" in the Central Planning Economy of East Germany

Simon Donig

Reasons for the Failure of Soviet Estonian Computer Project Juku

Laur Kanger

Tuesday, 28 July, 17.30 – 19.30

Chair: Gerard Alberts

Science and Politics Intertwined: Slovak Computing in the International Context

Maria Bardosova

Turning Programming Language into Working Technology: Compiler Construction at the Amsterdam Mathematical Centre, 1960

David Nofre, Gerard Alberts

Pierre MOUNIER-KUHN

CNRS-Sorbonne

mounier@msh-paris.fr

60

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1957 - Finished the University.
 1956 - Denis Taylor's membership for and come out for the future.
 1955 - Three more Denis Taylor's lead's design in fixed laboratory. Will a label from the Protoson. (Koveri 701) to the 3rd claim of the H.A.S.
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 + they H.A.S will use it.
 The rest of the

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 * Member of H.A.S
 * He establish a computer dept
 * He follows the dev. of B1.
 1956 * The dept became other school
 * Cybernetic Research group of H.A.S
 1957 * A technical (with it's name) circuit, mechanical design of the H.S. from the changed shift of Moscow.

Follow: your birth?
 Respublyant. 1930 15 April

Saturday, 1 August, 17.30 – 19.30

Chair: Éva Vámos

The Role of Small Technical Museums in Preserving the Cultural Heritage

Ante Sekso-Telento, Ivan Sekso-Telento, Josip Trbus, Sándor Jeszenszky

Microscope History Virtual Museum

Nikolay Koltovoy

T12 The Formation of Scientific Languages

Room: A2

Wednesday, 29 July, 17.30 – 19.30

Chair: Teodora Daniela Sechel

The Development of Symbolic Languages in the Field of Logic (1854-1903)

Amirouche Moktefi

The Birth of the Mediaeval Hebrew Mathematical Language

Ilana Wartenberg

Medicine and the National Languages in the Habsburg Monarchy (1770 -1830)

Teodora Daniela Sechel

Semantic Reflectiveness in Developing English Pharmaceutical Terminology

Leontina Kerničan, Dušanka Krajnović

T13 The Evolution of Teaching and Public Involvement

Room: A10

Saturday, 1 August, 17.30 – 19.30

Chair: Felicitas Seebacher

Learning in the Lab: High School Science Teaching in Ontario, 1880-1921

Michelle D. Hoffman

The Teaching of Radiochemistry in Portugal

Francisca Viegas, Cristina Felizardo, Elisa Maia

Kant Meets Comte amidst Industrial Confusion: The Formulation of the Idea of Applied Science in 19th Century Britain

Robert Bud

“Elementary” Texts as a Scientific Genre in Eighteenth-century France

Jeffrey L. Schwegman

Ideas of Modern Natural Sciences as the Instrument for Formation of People Rational Thinking

Olga Naumovna Golubjeva

Modern Mathematics at the Center for the Teaching of Sciences of Bahia (Brazil), 1965-1969

Freire Inês, André Luís Mattedi Dias

T14 Scientific Institutions - Learned Societies

Room: A6

Saturday, 1 August, 11.30 – 13.30

Chair: Jouzas Algimantas Krikstopaitis

Academies of Science in 18th-century Europe and the Application of Scientific Methods on Exploration – A Comparative Study

Jan E.A. Vandersmissen

Academic Drift among Scientific Institutions – Necessity or Serendipity?

Thomas Kaiserfeld

The Missing Link in Science Communication: The Role of Learned Societies and Popular Journals

Jørgen Burchardt

Saint-Petersburg Academy of Sciences in 1855-1917: Projects of Reform

Ekaterina Yu. Basargina

Saturday, 1 August, 15.00 – 17.00

Chair: Jørgen Burchardt

École Polytechnique de Lisbonne versus École Polytechnique de Paris

Pilar B.G. Pereira

The Role of the Japanese Cultural Background in the Formation of Engineering Education: In the Case of the Imperial College of Engineering, 1871-1886

Masanori Wada

Moscow Society of the Friends of Natural Sciences, Anthropology and Ethnography and Popularisation of Scientific Knowledge in the 19th Century Russia

Galina G. Krivosheina

Learned Society as Promoter of Education and Intellectual Activity: Baltic Case

Juozas Algimantas Krikstopaitis

T15 Art and Science

Room: A14

Wednesday, 29 July, 09.00 – 11.00

Chairs: Dénes Nagy, Assimina Kaniari

Art and Science in a Split Culture – A General Outlook and a Case Study: Breaking Leonardo's Vitruvian "Code" and the Golden Section with Less "Gold"

Dénes Nagy

Post-war Biology, Avant-Garde Art and the Social Life of Scientific Ideas at the Festival of Britain 1951: L.L. Whyte, D'Arcy Thompson and 'Form'

Assimina Kaniari

Carnap's Universal Metaphor: Art and Structural Objectivity between the Wars

Boris Jardine

Imre Lakatos' and Emmanuel Levinas'. Approaches to the Natural and Human Sciences.

Natalie E. Ross

Wednesday, 29 July, 11.30 – 13.30

Chairs: Dénes Nagy, Geert Vanpaemel

Bringing the Laboratory into the Museum of Fine Arts

Geert Vanpaemel

L'Architecte, le Dessin et la Science, Formes du Savoir dans la Construction

Nathalie Huyghues des Etages

New Results of the Arthistorical Researches of the Renaissance Frescoes of the Archbishop Johannes Vitéz's Studiolo in Esztergom /Hungary/

Mária Prokopp

The Restoration of the Renaissance Mural Painting „Virtues”, in the Studiolo of Johannes Vitéz, at the Castle Museum of Esztergom, New Researches and Results

Zsuzsanna Wierdl

Wednesday, 29 July, 15.00 – 17.00

Chairs: Dénes Nagy, Oscar Joao Abdounur

Prospective Dwelling: From Utopian to Iconic Habitats

Jorge Croce Rivera

An Exhibition on the History of the Interrelationships between Mathematics and Music

Oscar Joao Abdounur

The Art, Science, and Technology of Electrifying Music

Pierfrancesco Lostia

A Literary Figuration of Alchemy; Novelist Park, Sang-ryoong's 'A Study of Death'

Myungshin Kim

Wednesday, 29 July, 17.30 – 19.30

Chairs: Iván Urbán, Bogdan Zemanek

Caravaggio's "Boy Bitten by a Lizard", an Epileptic Contagion between History of Medicine and Folklore

Mauro Di Vito

History of Botany and Science - Nature - Culture Relations; Interdisciplinary Symposia in Cracow (Poland)

Alicja Zemanek, Bogdan Zemanek

T16 Science and Society

Room: A1

Wednesday, 29 July, 15.00 – 17.00

Chair: Tihamér Margitay

Preliminary Notes for a History of the Popularization of Quantum Physics in Spain

María C. Bosca

Science and Society in the Context of Contemporary Socio-economical and Ecological Problems

Zulfira Sherpaevna Gagaeva

The Professional and Public Recognition of Scholar

Oleksandr Fedorovych Konovets

Organizing Nordic Eugenics in the 1920s

Sven Widmalm

Wednesday, 29 July, 17.30 – 19.30

Chair: Sven Widmalm

The Institute of Race Biology in Sweden – Social Networks and Media Strategies

Maria Björkman

A Survey of Objective Transfer of Science and Technology Policy in European Union

Xinying Fang

Role of Nanotechnology in Optoengineering Development

Vladimir Gurikov

The Nobel Prize Complex in South Korea: Historical and Sociological Considerations

Sungook Hong

Thursday, 30 July, 15.00 – 17.00

Chair: Sungook Hong

Transition to Post-academic Science: Performance Indicators and Trust in Science

Tihamér Margitay

The Architectural History of a Chinese Village

Yuan Wang

Not Only Fermi. Edoardo Amaldi and the Rebirth of the Italian Physic

Luca Malagoli

The Biodiversity and Ecosystem Function Research Field: Intersections between Science, Politics, and the Public

Marcela Zalamea

Thursday, 30 July, 17.30 – 19.30

Chair: Marcela Zalamea

Public Concern about Animal Experimentation and the Russian Academy of Sciences in 1904-1906

Natalia E. Beregoy

Women and Civilization in the Thought of Edvard Westermarck (1862–1939)

Niina M. Timosaari

Investigative Report of State-owned Coal Mines for the Purpose of Understanding the Relationship of Science and Society in Mainland China

Li He

The Role of Shipbuilding and Navigation in the Development and Expansion of Mankind Civilization

Vladimir Nikitich Krasnov

Friday, 31 July, 11.30 – 13.30

Chair: Natalia E. Beregoy

The Role of Science-documentary Movies in the 1930s' in Hungary

Soma Redey

A Comparative History of the Formation of Passive Building Technology

Naoki Takuma, Hideto Nakajima, Naoki Yamano

The Relationship between Science Journals and the Media: A Lasting Marriage

Germana F. Barata

Social Phenomenon of Continuity of Scientific Schools of Statistical Physics in Ukraine

Alla S. Lytvynko

Friday, 31 July, 15.00 – 17.00

Chair: Soma Redey

Critical Assessment of Nikola Tesla's Legacy for Contemporary Science and Society

Tomislav Petkovic

The Role of the Referee in Royal Society of London at Nineteenth Century

Adriana Mattos

Image, Scientific Expedition, the Public, and Nation in Brazil (1870-1930)

Moema de R. Vergara

The 1853-1856 Cholera Morbus Epidemic in Portugal as Seen by the Press

Maria Antónia P. Almeida

T17 Science and Culture

Room: B3

Saturday, 1 August, 09.00 – 11.00

Chair: Roger Hahn

Measurement of Time, Length and Area in Southern India around 10th Century AD

B.S. Shylaja

Laboratory Culture in Academia

Truus Van Bosstraeten

Narrating the Beehive

Tania Munz

Credit for Idea, Credit for Experiments: the Authorship of the Doctoral Dissertation in Laboratory Sciences in the Eighteenth Century

Ku-ming (Kevin) Chang

Saturday, 1 August, 11.30 – 13.30

Chair: Tania Munz

Spinoza's Place in the Genesis of Early Modern Psychology

Igor S. Kaufman

La Femme et l'Univers Végétal dans la Botanique Mise à la Portée de Tout le Monde

Fernando Calderón

Visuality and Portentous Weather in Early Modern Culture

Maija Kallinen

Collecting Practices and Circulating Objects: The Material Culture of Sciences in Mid 19th Century England

Anastasia Filippopoliti

Saturday, 1 August, 15.00 – 17.00

Chair: Mihály Beck

Japanese Chemical Industry and the “Chemicalization of Everyday Life” in East Asia, 1895-1945

Shao-li Lu

The Former Headquarters of the Board of Public Health and Its Role in Sanitary Reform at the Beginning of the 20th Century

Benedito Tadeu Oliveira

Biopolitics and Cultural Heritage in Brazil: The Nation Versions between World Wars

Joel Birman

Danjon and French Astronomy during the Second Part of the 20th Century

John T. Blackmore

Saturday, 1 August, 17.30 – 19.30

Chair: B.S. Shylaja

Science in Culture and Culture in Science: Intertwining Experiences for Stimulating Curiosity in Children

Breda Čebulj Sajko

The Language of Science in a Globalizing World

Anna N. Gorodishcheva

Anti-Science: Its History and Features

Hongxia Sun

Bringing Science Communication to Public Behavior

Junping Hu

T18 Trans-cultural Diffusion of Science

Room: A12

Saturday, 1 August, 15.00 – 17.00

Chair: Imre Hronszky

Transformation and Assimilation: The Response of Chinese Literati to Western Crystalline Sphere in the Late Ming and Early Qing Period

Chengsheng Sun

Cultural Controversy in 18th Century England: The Transmission of Variolation

Alicia Grant

The Introduction of the Smithsonian Meteorological System in Japan

Kae Takarabe

Des Objets aux Gestes: Une Archéologie de l'École de Pharmacie de l'Ouro Preto, Minas Gerais, Brésil: 1890-1920

Myriam Bahia Lopes

Saturday, 1 August, 17.30 – 19.30

Chair: Myriam Bahia Lopes

Les Enjeux d'Un Média Visuel dans l'Entre-deux-guerres

Florence Riou

Paradigm of Transference of Sciences for Example Andalusia in Final of Medieval
Mohamadreza Pak

La Géologie en Algérie (fin XIXe-milieu XXe siècles): Origines et Développement
d'Une Discipline au Service de l'État en Contexte Colonial
Yamina Bettahar

T19 Technology Transfer

Room: C4

Friday, 31 July, 17.30 – 19.30

Chair: Maria Elvira Callapez

The US Foreign Policy in the Early Period of the Cold War and the Introduction of
Television Broadcasting and Atomic Energy to Japan
Kenzo Okuda

Digitization like Science

Rimvydas Lauzikas

Technology Transfer Constraints and the Portuguese Polymer Industry
Maria Elvira Callapez

Mercury Amalgamation in Hispanic America: Globalization of a Mining Technique in
the Sixteenth Century
Jeannette Graulau

How a Guild Apprentice Became an Architect in the 19th Century? – On the Example
of János Prokop's Journeys
Ákos Varga

Analysis of the Soviet Technology Transfer in the Development of China's Nuclear
Weapons
Yanqiong Liu

T20 Gender in Science and Technology

Room: A3

Wednesday, 29 July, 15.00 – 17.00

Chair: Éva Vámos

Women Investigators at the Institute for Heredity Research in Berlin 1912-1928/33;
First Results
Ida H. Stamhuis

Women Scientists and the Culture of Different Laboratory Practices – From the
Industry to the Kaiser Wilhelm Society and Vice Versa
Annette B. Vogt

Women-scientists as an Object of the Governmental Propaganda in Soviet Union
before the World War II
Olga A. Valkova

The Current Situation of Female Researchers in Japan
Mariko Ogawa

Wednesday, 29 July, 17.30 – 19.30

Chair: Ida Stamhuis

Gendered Elements in Chemical Thermodynamics: A Model for Conceptualizing Gender Ideology in the Content of the Physical Sciences

Ágnes Kovács

A Gender Perspective on Research Careers in Science and Technology during the Economical Transition in Russia

Anne-Sophie Godfroy-Genin, Vera Uvarova

Empowerment Process in the Rural Woman Promoting by Public Policies

Maria Almanza, Paola Olivares

Pain and Child Birth: A Journey through the History of Obstetrics' Anaesthetics in the 19th Century

Maria Alexandra Valadas

Gender, Culture and Power in the Social Construction of Menopause

Rebeca B. Fertrin, Lea Velho

T21 Science and Political Context

Room: C2

Friday, 31 July, 11.30 – 13.30

Chair: Péter Szegedi

Ottoman Decadence Reflected in Dr. Essad's Ophthalmoscope

Seref Etker

History of Science and Nation-building: Identifying the "Turkish Contributions to Science," 1870-1950

M. Alper Yalcinkaya

"For Paupers only!" The General Policlinic Vienna: Policy Laboratory and Counter University

Felicitas Seebacher

Did G. Mendel's Political Involvement Interfere with His Scientific Achievements during the Period 1853-1865?

Christiane L. Nivet

Friday, 31 July, 15.00 – 17.00

Chair: Mitchell Ash

Science, Nationalism and (Multi)Culturalism in the Late Habsburg Monarchy 1848-1918: A Preliminary Overview of the Issues

Mitchell Ash

Complementary or Competitive? National and International Science in 19th Century Habsburg Monarchy.

Jan J. Surman

'Staatsnation', 'Kulturnation', 'Nationalstaat'. Chances or Risks for Science and Scholarship in the Late Habsburg Monarchy?

Johannes Feichtinger

Scientific Nationalism

Gábor Palló

Saturday, 1 August, 09.00 – 11.00

Chair: Mitchell Ash

Patriotism, Nationalism and Internationalism. Chemists in the Czech National Enlightenment.

Soňa Šrbánová

To Be a Good Son of One's Nation... Czech Historians between National Program and Scientific Style

Antonin Kostlan

Racial Sciences in Hungary in the Decades around 1900

Emese Lafferton

Anthropological Disciplines in the Late Habsburg Monarchy

Irene Ranzmaier

Saturday, 1 August, 11.30 – 13.30

Chair: Joao Rangel de Almeida

Instruments of Paper, Overseas Agents, Distant Natural Objects: On the Spanish Instructions of the 18th Century

Marcelo Fabián Figueroa

Vinegar, Fire and Smoke. Quarantine and Purification in the 1830-1851 Mediterranean Sea.

Joao Rangel de Almeida

Nurses during the Spanish Civil War: The Political Participation of Women through Medical and Welfare Care

Dolores Martin Moruno

Archaeology in the Tropics: Science and the 20th Century Portuguese Colonial Agenda

Ana Cristina Martins

Saturday, 1 August, 15.00 – 17.00

Chair: Valentin Bazhanov

Popular Medical Manuals and Guidebooks in Late-18th Early-19th Century

Betania Goncalves Figueiredo

Ideology and Mathematical Logic: The History of Soviet-Hungarian Ties before and after World War II

Valentin A. Bazhanov

Imperial Ears: Ogawa Naoyoshi and the Colonial Linguistics in Early Twentieth Century Taiwan

Feng En Tu

Philosophical Roots of Boris Hessen: A Criticism against the Myth of Hessen's Externalism

Pablo Huerga Melcón

Saturday, 1 August, 17.30 – 19.30

Chair: Fabio de Sio

An Ivory Tower Downtown: The Rise and Fall of the "Area per la Ricerca" in Naples (1965-1970)

Fabio De Sio, Mauro Capocci

The Politics of Anatomy in Vienna

Tatjana Buklijas

**Plague, Cholera and the Expansion of Habsburg Medicine to the Ottoman Empire
1840-1860**

Marcel Chahrour

The Diaries of an Outstanding Physicist and Historian of Science – Sergey I. Vavilov

Vladimir Mihailovich Orel, Yuriy Ivanovich Krivonosov

**T22 Methodology and Sources for the History of Science and
Technology**

Room: A6

Wednesday, 29 July, 15.00 – 17.00

Chair: Levente Csóka

**10 Years in the Research of the Water-powered Up-and-down Sawmill Programme in
Szeklerland (Eastern Transylvania)**

Tamás Pauló

**The Role of Old Globes as a Multidisciplinary Source, in the Birth and Emergence of
Porto University**

Mónica C. Ramalho Oliveira

**The Material Culture of the First Experimental Tests of Bell's Theorem: An Analysis
of the Experimental Apparatus (1972-82)**

Wilson Fábio de Oliveira Bispo

Historical Development of Doors and Windows in the Carpathian Basin

Tamás Szemerey, Levente Csóka

The Bending Techniques of Wood in a Historical View

Sándor László Tóth

Wednesday, 29 July, 17.30 – 19.30

Chair: Thomas A. S. Haddad

Aesthetic Principles in Evolution of Physics

Svitlana D. Gapochenko

**Taking Practices as an Explanatory Source: Toward a Post-Needham Historiography
of Chinese Science**

Xiang Huang, Sergio Martinez

**Astronomy and History of Astronomy in the Jesuit Mémoires de Trévoux (1701-
1762): An Assessment of Themes and Modes of Presentation**

Thomas A.S. Haddad

**Hipparchus vs. Ptolemy and the Antikythera Mechanism. Pin/Slot Device Models
Lunar Motions**

Elias Gourtsoyannis

**On Metrology of Bukhara Emirate of the End of XVIII – The Beginning of XX
Centuries**

Mahmudjon Sh. Kholov

T23 Science and Philosophy

Room: C2

Tuesday, 28 July, 11.30 – 13.30

Chair: Wojciech P. Grygiel

The Problem of Quality and Quantity in the Development of Science from Ancient Times to Present

Erwin Neuenschwander

Philosophy of Mathematics in the Warsaw School of Mathematical Logic: Tarski and Mostowski

Roman Murawski

The Role of Historical Approach in the Emergence of New Humanist Philosophy of Mathematics

Olga Kiss

Philosophy of Mathematics and Effects on Mathematics Education

Tuba Gökçek

Tuesday, 28 July, 15.00 – 17.00

Chair: Erwin Neuenschwander

Science and Philosophy

Kajal Sraman

The Relationship between Science and Philosophy – Historical and Theoretical Aspects

Boris Chendov

Enjeux Entre les Approches Historique et Logique de la Recherche Scientifique

Fabio Tenorio de Carvalho

Eugene Wigner and Philosophy: The Steps of his Philosophical Formation

Frederik M. dos Santos

Tuesday, 28 July, 17.00 – 19.30

Chair: Boris Chendov

Cultural and Historical Coexistence and Irrelevance of Presentist/Eternalist Debate

Alain Ulazia

Man's Determination of Nature's Cognition

Yuriy Kulkov

Non-cognitive Values and Applications of Scientific Theories

Kelly I. Koide

Casus or Philosophy and Representation of the Singular?

Natalia A. Kolodiy, Tatiana Konyukhova

Wednesday, 29 July, 09.00 – 11.00

Chair: Olga Kiss

History of Quarks as the Witness of Instrurealism in Observational-theoretical Distinction: Reconciliation of Scientific Realism and Instrumentalism

Musa Akrami

Physics-likeness of Science

Peeter Miiirsepp

Historical Reasons and Possible Ways of the New Scientific Synthesis

Alexander E. Egoyan

Wednesday, 29 July, 11.30 – 13.30

Chair: Peeter Miiirsepp

Was Einstein Right about Quantum Mechanics?

Fátima Masot Conde

Le Développement de la Théorie de la Relativité dans le Milieu Philosophique Français dans les Années 1920: Une Étude à Partir de l'Épistémologie Bach

José Ernane Carneiro Carvalho Filho, Michel Paty, Elyana Barbosa, Aurino Ribeiro Filho

String Theory – The Fall of Science?

Wojciech P. Grygiel

Einstein and Newton; Two Giant Philosophers – Scholars: Relativity Absorbs Quantum Gravity and Negates Absolute!

Shiva Kaviani

T24 Science and Military Affairs

Room: A7

Friday, 31 July, 17.30 – 19.30

Chair: Emese Szoleczky

Turning Organic Chemistry into 'a Science rather than an Art': The Role of the US Military during and after World War II

Stephen J. Weininger

The Quest for National Fuels, an International Matter of the Interwar

Camille Molles

Working Out of the Laser Weapon under the Program «Star Wars» in the USA

Anatoly Djemin

T25 Modernization and Development

Room: A4

Wednesday, 29 July, 15.00 – 17.00

Chair: Eldar M. Movsumzad

Forgotten “Industrial Warriors”: The Boom of Vocational Training in South Korea, 1967-1986

Tae-Ho Kim

A Review of the Observations of the Historian Kume Kunitake on Chemistry Education, Mining and Chemical Manufacturing in the West and in Japan in the True Accounts of the Iwakura Embassy to the United States of America and Europe 1871-1873

Yona Siderer, Masanori Kaji

Development of Transport Systems for Oil and Gas Delivery from Offshore Fields

Anna Lokshina, Ildar Shammazov

Bulgarian Dairy Industry Meets the (West) European, 1910-1940

Elitsa R. Stoilova

Wednesday, 29 July, 17.30 – 19.30

Chair: Yona Siderer

The Gas Hydrocarbon Stock for Electroenergetic

Eldar M. Movsumzade, E.S. Bogacheva, M.Y. Karisalov, A.V. Borodin

Development of Mathematical Methods and Information Technology

T.A. Aliyev, N.Ch. Movsum-zade, Abdula E. Karayev

Development of Helium Industrial Production from Natural and Casing-head Oil Gases in Russia *

Alik M. Syrkin, E.V. Stolypin, V.I. Stolypin, N.L. Egutkin

Evolution of the Technologies and Technical Means for Offshore Oil and Gas Fields Development

Boris N. Mastobaev, Ayrat M. Shammazov

T26 Technology and Society

Room: A2

Tuesday, 28 July, 11.30 – 13.30

Chair: Lilyia P. Ponomarenko

Strategies for Simulation of View in the Production Agroindustry

Rubén D. Bonilla Isaza, Milton Mauricio Herrera Ramírez

L'Usage du Marbre dans la Construction des Églises: la Technique au Service de la Symbolique dans la Spiritualité Chrétienne

Joëlle Petit

De la Parade au Changement Climatique: Homme, Habitat et Isolation Thermique

Dominique Theile

The Plot of Concrete in Brazil: A History of the Technology Diffusion of Reinforced Concrete

Roberto Eustaáquio dos Santos

Tuesday, 28 July, 15.00 – 17.00

Chair: László Tóth

Risk Assessment and Risk Society: Winners and Losers in Genetic Discourse

Maria Alexandra Valadas, Carlos Melendez

Shattered Hopes – The Swedish Wood Gas Experience

AK Helena Ekerholm

A Chain of Technological Development in Japan after the WW II and Social Constructionism of Technology

Tadaaki Kimoto

Telescola: An Educational Television Project Developed in Portugal, in the 1960's

Mária C. Almeida

Tuesday, 28 July, 17.30 – 19.30

Chair: László Tóth

A Phenomenological Analysis of Facebook

Carlos R. Melendez, M. Alexandra Valadas

Development of High-tech and Social Fairness

Feng Zhang

The Necessity of Control of the Increasing Global Radiation Risk by Way of the Creation of the Complex System of the Two-united Radionuclide-ecological and the Medical-genome Monitoring (REMGM)

Alexandr P. Elokhin, Igor Ivanovich Suskov, Alexandr Ivanovich Glushchenko, Alexandr Prokopevich Elokhin, Larisa Stepanovna Baleva, Alla Evgenevna Sipyagina

The Most Common Technical Systems in the Service of the Mankind – History of Toilets

Petri S. Juuti, Riikka P. Rajala

Wednesday, 29 July, 09.00 – 11.00

Chair: Lillian Hoddson

Long-term Thinking in Water Services in Finland

Riikka P. Rajala, Petri S Juuti

Information Society as Surveillance Society

László Molnár

Showmanship and Technological Futurism: The Middleton Family at the 1939 New York World's Fair

Jaume Sastre-Juan

GM Rice Trial in Japan: Its Historical Background and Meaning

Takako Nakajima

Wednesday, 29 July, 11.30 – 13.30

Chair: László Molnár

Public Opinion towards Biotechnological Applications: Example of Turkey

Oguz Ozdemir

One of the Ways to Solve Power and Environmental Problems: Application of the Superconductivity

Lilyia P. Ponomarenko

Social Agendas and Transdisciplinary Education as Engines for Radical Scientific Invention: Stanford Ovshinsky's Energy and Information Inventions

Lillian Hoddson

History of Electric Energy in Brazil: The "Electromemory" Project – 1890 to 2005

Gildo M. Santos

Wednesday, 29 July, 15.00 – 17.00

Chair: Carlos R. Melendez, Sándor Jeszenszky

The Public Side of Technology: Patents Publications XVI-XVII Century

Luisa Dolza

A Brazilian in the Genesis of the Electronics Technology

Francisco A. de Queiroz

New Rurality: Approaches and Synergies. Emergence of an Alternative Development Model

Noriero Escalante Lucio, Almanza Sánchez María, Torres Carral Guillermo, Ramírez Miranda César Adrián

Political and Cultural Grounds as Driving Force of Soviet Broadcasting Technologies

Nina A. Borisova

Technology's Fingerprints on Social Crossroads

Elena Lacatus

T27 Politics of Technology

Room: A15

Saturday, 1 August, 17.30 – 19.30

Chair: Imre Hronszky

Negotiating Neighbours – National and Transnational Politics of a Natural Gas Pipeline

Anna Åberg

The Politics of Dust Suppression in Spanish Coal Mining, 1944-1975

Alfredo Menéndez-Navarro

Leviathan and the Airplane: The Rise and Fall of the Technological State in Indonesia, 1966-1998

Sulfikar Amir

T28 Approaches to History of Science

Room: A7

Wednesday, 29 July, 09.00 – 11.00

Chair: Hayo Siemsen

Different Approaches to the History of Science and an Idea of the Optimal Doctoral Programs in the History of Science

Michal Kokowski

On the Resistance of the World

Ilksen N. Icen

Ernst Mach and George Sarton: The Genesis of Ideas in the History of Science

Hayo Siemsen, Karl Hayo Siemsen

Rosalind Franklin and the DNA Double – Helix: Historiographical Accounts

Marcos Rodrigues Da Silva

Wednesday, 29 July, 11.30 – 13.30

Chair: Robin W Scheffler

From the Local to the Global. The 'Circulation of Knowledge', a Promising Perspective?

Bart Karstens

Yangzhou 揚州 Scholars' Eyes On Jesuit Science: Reflections on the Chouren zhuan

Ling-Hsuan Shih

Le « Degré Zéro » de la Nanotechnologie : à Propos de Feynman Comme Précurseur
Marcos A.G. Nalli

Interests and Instrument: A Micro-history of Object Wh. 3469 (X-ray Diffraction Powder Camera c. 1940)

Robin W. Scheffler

T29 Darwin 1809-1859-2009

Room: A7

Wednesday, 29 July, 15.00 – 17.00

Chair: György Kampis

The Dialectical Structure of Darwin's Argumentation

Anna Carolina Regner

History and Philosophy of Science on Trial

David W. Mercer

The Introduction of Darwin in Portuguese Science and Culture (1865-1914)

Ana Leonor Pereira

Mendelism Enforcing Darwinism: The Introduction of the Mendelian Laws of Heredity in the Portuguese Scientific Thought of the Early 20th Century

Pedro R.G. Fonseca

Wednesday, 29 July, 17.30 – 19.30

Chair: István Matskásy

The Development of Darwinism by Ukrainian Zoologists (End of XIXth – Beginning of XXth Century)

Oleg Pilipchuk

What Had Happened if Darwin Had Known Mendel (or Mendel's Work)?

Pablo Lorenzano

Darwinism and the Study of Behavior: The Case of "Clever Horses from Elberfeld"

Marco Stella

T30 Galileo 1609-2009

Room: A13

Wednesday, 29 July, 09.00 – 11.00

Chair: Lajos Bartha

On Mechanical Science: Leonardo, Tartaglia, Galilei and Lorini

Raffaele Pisano, Danilo Capecchi

Galileo's Military Compass and the Context for Mathematical Physics

Nikhil Bhattacharya

"La Ragione del Vacuo". Why and How Galileo Measured the Resistance of Vacuum

Cesare S. Maffioli

Observer Point of View as an Argument for Physical Knowledge (from Galileo to Hawking)

Igor D. Nevvazhay

T31 History of Science in Education

Room: C3

Tuesday, 28 July, 11.30 – 13.30

Chair: Michael R. Matthews

"Les Magiciens de la Lumière" or "Wizards with Light", a Film Tracing the History of the Speed of Light

Pierre Lauginie, Serge Guyon, Christine Azémar, Laurent Baraton, Alain Sarfati

Historical Artefacts - Direct and Indirect Evidences for Evolution in Biology Curricula

Gergely Kertész

Science and Worldviews in the Classroom: Joseph Priestley and Photosynthesis

Michael R. Matthews

George Sarton's Viewpoints on the Teaching of the History of Science

Longhu Qiu

Tuesday, 28 July, 15.00 – 17.00

Chair: Jan Mikes

"The First Days of Electricity": Teaching Proposal for the Exploration of the History of Electricity Using a Scientific Instrument Collection

Flora Paparou, Alexandra Karaliota

Analyses of the Historical Thermodynamics Contents in the Physical Chemistry Textbooks Used in Brazil

Glaucia M. Da Silva, Leo Degreve, Giovana Aline Moi

New Attitudes to the Technical History Research, by Way of an Example: Modelling of the Electrotechnical Origins in Czech Countries

Jan Mikeš, Marcela Efmertová

Invisible Vapor: Electric Motors from the Perspective of the History of Electricity

Kemal Yurumezoglu, Ayse Oguz

Tuesday, 28 July, 17.30 – 19.30

Chair: Nicla Palladino

Science Students' Description of an Atom: A Comparative Epistemological Analysis

Ayşe Oguz, Husamettin Akçay, Dilek Akyol

The Models of Mathematical Surfaces and the Anaglyphs: Their Historical Origin, Didactics Applications, Actual Use in Image Communication

Nicla Palladino

Coexistence of History of Mathematics and Modern Mathematics

Saeed Banihashemi

Idea of Universal Mathematical Instrument in Jacobi's Tracts – CANCELLED!!!

Milyausha Ananyeva

Wednesday, 29 July, 09.00 – 11.00

Chair: Gergely Kertész

Outputs of the Science History Course: The Sample of KTU Department of Computer Education & Instructional Technologies

Emine Timuçin, Sakine Sensoy-Öngöz

Historical and Scientific Material in Professional Training of Teachers

Irina Vlasova

A Naturalist Who Became a Pioneer of Experimental Marine Oceanography in Portugal. Assets for Science Education.

Cláudia Faria, Gonçalo Pereira, Isabel Chagas

A Few Stories from Biochemistry and Molecular Biology

Carme Zaragoza Domenech, Josep M. Fernández Novell

Wednesday, 29 July, 11.30 – 13.00

Chair: Thomas L. Isenhour

EPMagazine from the Students to the Students

Angelo Rapisarda

Can You Tell Me What the Science Is?

Zeynep Haliloglu Tatli, Alipaşa Ayas, Rabia Yıldız

History of Science and Philosophy of Science: Analysis of Correlations

Sergey F. Martynovich

The Evolution of Modern Science: Integrating Science into the Humanities

Thomas L. Isenhour

T32 Science in Social Context

Room: A11

Friday, 31 July, 11.30 – 13.30

Chair: Luís Miguel Carolino

Paradox of Interdisciplinarity Revisited (Curriculum Vitae of a Discipline)

György Darvas

Popular Interest in Science: The Readers of the Magazine *Ciência Popular* (1948-1960)

Catarina C. Silva

The Formation of a Space-rocket and Radio Technologies: Personality and Politics

Vassili M. Chesnov

Friday, 31 July, 15.00 – 17.00

Chair: György Darvas

The Eclipse, the Astronomer, and His Audience: Federico Oom and the Total Solar Eclipse of 28 May 1900 in Portugal

Luís Miguel Carolino

Scientific Achievements - The Starting Factor of Country Innovative Development

Valeriy Grigoryev

Interpreting the Cephaloscope: Instruments, Diagnosis, and the Medicalization of the Deaf, 1800-1850

Jaipreet Viridi

Friday, 31 July, 17.30 – 19.30

Chair: Jaipreet Viridi

The Roots of the Modern Social and Welfare State and the Ideas of the Vienna Scientific Essayist on Social Reform Rudolf Goldscheid (1870-1931)

Gudrun Exner

**Romance of an Indigenous Chemical Enterprise in Kolkata – Case of East India
Pharmaceutical Works Limited**

Malika Basu(Ghosh)

T35 Scientific Instruments

Room: A2

Thursday, 30 July, 15.00 – 17.00

Chair: Vasily Borisov

**The Unilever Collection and the Dilemma's of Collecting Modern Scientific
Instruments**

Ad Maas

**The Project "EPMOSPHERE": The Old French Armillary Sphere of Lomonosov
Museum as the Object of the International Education, Restoration, Research**

Tatiana M. Moiseeva

**Gnomon: A Mediating Instrument for Drawing, through Historical Origin,
Morfological Construction and Use**

Panagiotis N. Delikanlis

Thursday, 30 July, 17.30 – 19.30

Chair: Steven Turner

**Wavefront Sensing. A Non Contact Technique for the Assessment of Optical
Instruments**

Santiago Vallmitjana, Carme Ferran

An Apparatus for Demonstrating the Imperishability of Forces of Nature

Jan Tapdrup

How the Interferometer Changed Ideas about Nature

Harry H. Mark

**Controversy over the Reliability of Wind Tunnels in Early British Aeronautical
Research**

Takehiko Hashimoto

Friday, 31 July, 11.30 – 13.30

Chair: Stephen Johnston

**The Taly Range – An Introduction to a Remarkable Family of Instruments of
Precision Measurement**

John S. Reid, Michael A. Player

Canterbury Tales: Medieval Instruments in Social Context

Silke Ackermann

Geography, Astronomy and Mathematical Instruments in 16th-century Europe

Katie Taylor

The Planetarium by Hartog van Laun

Hans Hooijmaijers

Friday, 31 July, 15.00 – 17.00

Chair: Paolo Brenni

Telescopes as Decorative Art

Marvin Bolt

Scoping Longitude: Optical Designs for Navigation at Sea

Richard Dunn

Astronomical Instruments for Gazing and Measuring

James Caplan

The Schmidt Telescope – A Highlight in Astrophotography

Gudrun Wolfschmidt

Friday, 31 July, 17.30 – 19.30

Chair: Gloria Clifton

Teaching and Research: Shifting Trajectories of Science at Georgetown University in the Nineteenth Century

Dana A. Freiburger

Ranking the Stars; the Magnum Opus of J.C.Kapteyn

Jan W. Huisman

Astronomical Sites and Instruments as World Heritage: The Case of 19th and 20th Century Observatories

Françoise C. Le Guet Tully, Jean Davoigneau

Advanced Instruments and Informal Scientific Bodies: The First Observations of Venus and Mercury by Radar

Vasily P. Borisov

Saturday, 1 August, 11.30 – 13.30

Chair: Richard Kremer

Instruments of Music as Instruments of Science: Hermann von Helmholtz's Sound Sensation Studies, His Classicism, and His Beethoven Sonata

Alexandra E. Hui

The Early Years of Histological Research at Ghent University (Belgium)

Kristel Wautier, Alexander Jonckheere, Danny Segers

Bringing Physics to the Physicians

Robert D. Hicks

What Happened on the East River: The Synergy of Scientific Instrument Development at the Rockefeller Institute and the RF Virus Laboratory

Darwin H. Stapleton

Saturday, 1 August, 15.00 – 17.00

Chair: Peggy Kidwell

Doing it by the Book

Tacye Phillipson

Liebig's Kaliapparat: A Case Study on the Material Culture of Chemistry

Sara R.D.S. Carvalho

Buying Instruments: Costs of an Experimental Culture. The Case of the Physics Laboratory at Padua University (1847-1857)

Christian Carletti

En Route to the „German Chronometer“: The Introduction of Precision Timekeeping in the German Mercantile Marine and Imperial Navy in the 19th Century

Günther Oestmann

Saturday, 1 August, 17.30 – 19.30

Chair: Tacye Phillipson

Models as Material Ideas. Teaching Useful Knowledge with Irenical Instruments in the Early Enlightenment

Kelly J. Whitmer

The Inclined Plane: A New Look at a (Very) Old Instrument

Steven C. Turner

Scientific Instruments in the Polytechnic School of Lisbon: The 19th Century Collection of Optical Instruments

I. Marília Peres

Skinner Box in Psychology Didactic Laboratories in Brazil

Sergio D. Cirino, Kennon A. Lattal, Rodrigo L. Miranda, Robson N. Cruz

T36 Studies in the History of Metrology

Room: A8

Wednesday, 29 July, 09.00 – 11.00

Chair: Roger Hahn

Foundation for Traditional Chinese Metrology Museum

Zhelei Xia, Wei Huang, Jiebin Lang, Xinming Jiang

Résolution Numérique d'Un Problème Métrologique: le Pied, la Perche et l'Acre d'Angleterre

Olivier Reguin

La Métrologie Historique en France Depuis un Demi-siècle

Jean-Claude Hocquet

La Coordination Métrologique et la Spatialité dans le Cas de Quelques Petites Églises Romanes en Bourgogne

Masatsugu Nishida

Wednesday, 29 July, 11.30 – 13.30

Chair: Jean-Claude Hocquet

A Study on Ying Biao Yi – A New View on the Important Document in the History of Metrology in China

Yuzhen Guan

On Historical Development of Chinese Metrology

Zengjian Guan

Material Metrology and the Strange Pyramidology of C. Piazzi Smyth

Michael J. Barany

The Management of Chinese Time Metrology in the Period of the Tang Dynasty – Administrative Organs, System and Legal Precedent of Clepsydra

Yong-liang Ji

Wednesday, 29 July, 15.00 – 17.00

Chair: Lajos Bartha

The Emergence of Macroscopic Quantum Effects and the New International System of Units (SI 2011) Based upon Fundamental Constants

Heinz Luebbig

History of Precise Reading for Measuring Instruments

Eiju Matsumoto

On the Evolution and its Impact of the Metrological Units of Traditional Chinese Medicine in Ancient China

Rentian Ji

On the Metrological Legal System in Qin Dynasty: The Initial Formation Times of Ancient Chinese Metrological Legal System.

Junlin Yu

Wednesday, 29 July, 17.30 – 19.30

Chair: Eiju Matsumoto

The Portuguese Marco – The First Measurement Standard Travelling around the World

Antonio Cruz

The Measurement of the Standard Time in the Republic of China

Vilin Sun

Historical Review on Pre-metric Metrology in the Netherlands

Shigeru Kurosu

T37 Controversies and Methodology in the History of Science

Room: A5

Friday, 31 July, 11.30 – 13.30

Chair: Gábor Zemplén

Leibniz's Method of Conciliation of the Opposites in a Scientific Controversy

Marcelo Dascal, Erez Firt

Metaphysics, Physics, and Methodology in the Vis Viva Controversy

Idan Shimony

Hume's Experimental Method

Tamás Demeter

Discussion

Friday, 31 July, 15.00 – 17.00

Chair: Marcelo Dascal

Methodology as an Argumentative Tool in Debates around Newton's Theory of Light and Colours

Gábor Á. Zemplén

Controversy Studies: Another Field of Scientific Meta-expertise?

Gábor Kutrovátz

Discussion

T38 Scientific Controversies

Room: C4

Wednesday, 29 July, 11.30 – 13.30

Chair: Günther Fleck

The Dispute about Culture(s). Controversies in the Social and Cultural Sciences and What We Can Learn from Them.

Manfred Fraunlob

Science between Emancipation and Adaptation

Gernot Stimmer

Intuition versus Science: The Limits of Reason in a World of Emotions

Rainer Born, Eva Gatarik

Wednesday, 29 July, 15.00 – 17.00

Chair: Katalin Martinás

Psychological or Physiological: Which Suit Should We Wear?

Shulamith Kreitler

Therapy According to Diagnosis or Vice Versa?

Dagmar Eigner

Science or Pseudoscience: The Strange Case of Parapsychology

Günther Fleck

Wednesday, 29 July, 17.30 – 19.30

Chair: Rainer Born

Miller's Experiments: A Relativistic Controversy

Roberto Lalli

Energy Controversy

Katalin Martinás

Controversies in Thermodynamics

László Ropolyi

T39 History of Cognitive Science

Room: C4

Tuesday, 28 July, 11.30 – 13.30

Chair: Lillia Gurova

Interdisciplinary Issues in Early Cybernetics

Leone Montagnini

On the Criterion for Deciding whether Machines Can Think

Stefan Riegelnik

History of Humanoid Robots

Basak Yuksel, Yoshihiko Nakamura

Anthropomorphism as a Demarcation Criterion in the History of the Hungarian Cognitive Dog-ethology

Katalin Mund

Prehistory of Cognitive Science

Andrew Brook

Tuesday, 28 July, 15.00 – 17.00

Chair: Csaba Pléh

Behaviourism and Cognitivism - On the Roots of Cognitive Sciences

Gabriele M. Mras

From Today's Crisis in Cognitive Science to Yesterday's Crisis in Psychology

Nicole Rossmannith, Andreas Reichelt

Models of the Mind throughout the History of Cognitive Science

Sven Walter

Thirty Years Cognitive Studies of Categorization: What's behind the Reported Progress

Lilia Gurova

Tuesday, 28 July, 17.30 – 19.30

Chair: Nicole Rossmannith

Animal Memory and the Origins of Mind: The Conception of Lajos Kardos, a Hungarian Comparative Psychologist

Csaba Pléh

Cognitive Science between Biology and the Social Sciences Abstraction, Isolation, Re-opening

Andreas F. Reichelt, Nicole Rossmannith

Then and Now: Cognitive Science and Economics

Filomena De Sousa

The Right Hemisphere of Cognitive Science

Bálint Forgács

T40 Pioneering Ideas and Methods in the History of Earth Sciences

Room: C1

Saturday, 1 August, 15.00 – 17.00

Chair: Miklós Kázmér

History of the Geomorphological Concept and the Hungarian School of Geomorphology in the Second Half of XX. Century

Terézia Póka

Giuseppe Folgheraiter the Italian Pioneer of Archaeomagnetism

Claudia Principe, Jonas Malfatti, Yves Gallet, Maxime Le Goff, Agnes Genevey

Relevant Cartographical Maps Made and Used by Geographers in the Carpathian-Danubian-Pontic Area, in the 17-20th Centuries

Horia Salca, Doina Suteu

T41 Some Methodological Aspects of History of Science

Room: A13

Friday, 31 August, 17.30 – 19.30

Chair: Roberto Angeloni

Why does the Traditional Distinction between Internal and External History not Hold?

Roberto Angeloni

Principles of Determination of Discovery Convention Priorities

Aleksandr Pilipenko

Methodological Issues of the History of Soviet Psychology between the Two World Wars: Case Study of Vygotsky Circle

Anton Yasnitsky

Special Meetings during ICHST 2009

(as of 14 July)

Business Meeting of CBD (Commission on Bibliography and Documentation)

Tuesday, 28 July, 17.30 – 18.30, Room: A6

Pioneer's Roundtable

Tuesday, 28 July, 18.30 – 19.30, Room: D1

IASCUD Commission Meeting

Wednesday, 29 July, 09.00 – 11.00, Room: C4

Commission for History of Ancient Medieval Astronomy CHAMA

Wednesday, 29 July, 09.00 – 11.00, Room: C7

ESHS Meeting

Wednesday, 29 July, 13.30 – 15.00, Room: A9

Meeting of editors and journals

Wednesday, 29 July, 15.00 – 17.00, Room: C7

IUHPS/DHST Council Meeting I.

Wednesday, 29 July, 17.30 – 19.30, Room: C6

IUHPS/DHST General Assembly I.

Thursday, 30 July, 09.00 – 13.00, Room: C7

IUHPS/DHS Modern Commission for the History of Modern Physics

Thursday, 30 July, 15.00 – 16.00, Room: A6

Sciences et Empire Commission ICHST/UNESCO

Thursday, 30 July, 15.00 – 16.00, Room: A7

Commission on History of Science and Technology in Islamic Societies

Thursday, 30 July, 15.00 – 17.00, Room: A4

Meeting of the Commission on History of Geography

Thursday, 30 July, 15.00 – 17.00, Room: A5

Business Meeting of Pacific Circle

Thursday, 30 July, 15.00 – 17.00, Room: A3

Women in Science Commission

Thursday, 30 July, 15.00 – 17.00, Room: A13

East Asian Commission

Thursday, 30 July, 17.30 – 19.30, Room: A6

When is a Problem Solved? Round Table Phil Davis Essay

Thursday, 30 July, 17.30 – 19.30, Room: A5

Joint Commission

Thursday, 30 July, 18.30 – 19.30, Room: A3

Teaching Commission

Thursday, 30 July, 18.30 – 19.30, Room: A13

Meeting of ICOHTEC Executive Board

Thursday, 30 July, 20.00 – 22.00, Room: D1

DHST-DLMPS Meeting

Friday, 31 July, 13.30 – 15.00

CHST Meeting

Friday, 31 July, 15.00 – 17.00, Room: C7

Open Session of ICHM

Friday, 31 July, 17.30 – 19.30, Room: C7

"For Better or Worse – Co-operative Scientific Couples" Future Project Discussion

Friday, 31 July, 17.30 – 19.30, Room: A4

Scientific Instrument Commission

Saturday, 1 August, 09.00 – 11.00, Room: A2

General Assembly of ICOHTEC

Saturday, 1 August, 15.00 – 17.30, Room: D1

IUHPS/DHST General Assembly II.

Saturday, 1 August, 15.00 – 19.00, Room: C7

IUHPS/DHST Council meeting II

Sunday, 2 August, 12.30 – 13.30, Room: C6

Field Trips

On July, 30 morning special visits will be organized to places of interest (history, science and culture). The shuttle buses will start at 9.30, meeting point in the registration area.

FT1 – Hungarian Museum for Science, Technology and Transport, Central Building

The predecessor of the Central Unit was the Transport Museum, founded in 1896. The collections and exhibitions almost all are related to transportation history. The main units are: Transport on water: maritime and river and railway transportation. Safety and signaling equipment. There exists an independent aviation collection, space research collection and life style collection. We find here more than 200 original objects: coaches, carriages, trams, wagons, airplanes, gliders, space capsules. These objects can be seen in the main building. World famous is the collection of 1- to 5- scale models of locomotives and wagons.

The Kossuth Historic Boat is open to the public. The Coach Museum in Parád is very popular. Near the central building there is Petöfi Hall with the airplane collection and the space research exhibition.

The tour starts with a 20-minute stop at the Budapest Evangelic Secondary School where several of the Nobel-Laureates of Hungarian origin studied.

FT2 – Hungarian Museum for Science, Technology and Transport, Study Stores

The predecessor of the Study-stores, the Hungarian Museum for Science and Technology was founded in 1954 as Group for Registering and Collecting of Technical Relics.

The sphere of collecting comprises all the branches of science (except life sciences), and all the branches of technology (except transportation).

The main scientific collections are:

Objects related to mathematics, informatics, and physics are displayed in the study stores. Objects related to chemistry are also shown here. The collections comprises the best set of geodetic instruments in the country and a very good and old collection of astronomy and optics. The collection of office equipment and household are connected to everyday life. A visit to the telecommunication collection makes the tour complete. MOBILEUM the interactive power machine hall is a fascinating part of the Study-stores.

FT3 – Foundry Museum of the Hungarian Museum for Science, Technology and Transport

Foundry Museum preserves the past of a profession in the heart of the capital, in an old foundry shop of Abraham Ganz's erstwhile world famous railway wheels factory.

The exterior of the Foundry Museum building is a treat for the eyes. Entering, visitors meet a wooden structure workshop of a 19th century's factory. All the melting furnaces, pouring ladles, mould boxes, revolving cranes preserved as relics, make the impression of getting into an operating iron foundry.

Take a look at our wonderful relics and documents, 19th century's artistic iron castings, bell show, cast iron lacy spiral stairs, and relics of Abraham Ganz and András Mechwart's lives.

FT4 – Electrotechnical Museum of the Hungarian Museum for Science, Technology and Transport

The museum opened its doors in 1982, and houses exhibitions featuring more than a century's worth of Hungarian contributions to the electric power industry. Electric trains, lighting technologies, and transformer production are on display along with various consumer technologies and a host of other original artifacts.

FT5 – Hungarian Natural History Museum

The Hungarian Natural History Museum is one of the finest institutions of its kind in Europe, an inspirational setting that houses magnificent collections of major historical importance. To promote public understanding and nature conservation the museum collects, classifies, and preserves a wealth of natural artifacts, presenting them according to the latest scientific knowledge.

FT6 – Hungarian Geographical Museum

The Hungarian Geographical Museum presents the heritage of great geographers. Historic documentation from research conducted by Hungarian geographers and geologists, as well as the artefacts from their exotic travels, are displayed in the exhibition.

The Museum presents the heritage of great geographers such as Jenő Cholnoky, Gyula Germanus, Sándor Láng, Lajos Lóczy, János Tulogdi, and, last but not least, of its founder Dénes Balázs. Lóczy's leather boat used for his research on Lake Balaton, as well as the artefacts from Cholnoky's travels in China and objects from Papua New-Guinea, East Africa, and North and South America are all among the exhibits.

Permanent exhibitions: the role of Hungarians in the scientific discovery of Earth from the 13th century to the present day; scientific exploration in the Carpathian Basin - the results of the leading figures in earth sciences, geography, geology, palaeontology and cartography in the natural scientific discovery of Hungary. The pantheon of the Hungarian world-travelling geographers can be seen in the Museum Gardens.

Built around 1840, the Classicist Wimpffen Mansion is home to the Museum.

Temporary exhibitions are also arranged in the Museum which has a public library.

FT7 – Geological Institute of Hungary

The Geological Institute – housed in a purpose-built, spectacular Art Nouveau palace – has been responsible for the geological mapping of Hungary since 1869. This activity is served by a museum of fossils and minerals, a major library of books and maps, and an archive. Exhibitions display old maps, geologists' instruments and books on the Carpathians from the last 400 years.

FT8 – Eötvös Loránd Geophysical Institute of Hungary

The Eötvös Memorial Collection displays the most sensitive gravity instrument of all times, a torsion pendulum, built in 1891 by Eötvös, professor of physics in Budapest. Applied in oil exploration for decades, their 'evolution' is illustrated by original instruments. Personal memorabilia of the professor, the politician, and mountaineer Eötvös are on display. Hungarian-made geophysical devices are exhibited from the 1930s onwards.

FT9 – Museum of Natural History of the Loránd Eötvös University of Sciences

The roots of the Eötvös Museum of Natural History go back to the first University Natural History Museum, open to the public in Pest already in the end of the 18th century. The current structure of the Museum was set up in 2002, when the Faculty of Science moved to the new Danube Riverside Campus (Lágymányos, Budapest). It consists of six collections (mineralogy, petrology, biology, paleontology, mathematics and science history) and two exhibitions. Minerals and rocks are exhibited in the original 19th century Historical Exhibition Hall, transferred to and rebuilt in the new campus, with its atmosphere proudly representing the long tradition of teaching sciences at the Eötvös Loránd University. The Biology and Paleontology Exhibition is hosted by a modern glass pyramid.

The Science History Collection was established to preserve relics of research and science education at the university, historic demonstration models and charts, analytical equipment, personal objects of professors as well as old textbooks and scientific literature.

FT10 – Semmelweis Museum, Library and Archives of the History of Medicine

The museum ranges across the history of medicine, pharmacy, and public health, holding a wealth of instruments. The current temporary exhibition focuses on the history of pathology.

FT11 – Hungarian Museum for Commerce and Catering

The museum was founded in 1966, and started its operation in the World Heritage Buda Castle, in the building of the former Fortuna Inn, where it was in operation until 2005. In September, 2006, the museum opened its gates at a new location in District V, next to the Szent István basilika.

Initially the collection of the museum contained only catering-industry relics, which was later extended with a collection of trade history relics. The institution has the functions of an industry history museum, and meets the requirements of specialized-museology.

Book Exhibition

The book exhibition is held in the Aula next to the registration and coffee break area. List of exhibitors include: Ashgate Publishing Group, Birkhäuser Verlag AG, Brepols Publishers NV, Casa Editrice Leo S. Olschiki S.r.l., Harvard University Press, Maney Publishing, Oxford University Press/Oxford Journals, Pickering & Chatto Publishers, Taylor & Francis, Templeton Press, The Johns Hopkins University Press, The MIT Press, The University of Chicago Press, University of Toronto Press, World Scientific Publishing.

In addition, a bronze model of the Antikythera Mechanism, the oldest known scientific instrument and mechanical universe is exhibited.

Evening Programs (for all registered participants)

Welcome Reception

27 July, Monday, 19.00 – 21.00

The Welcome Reception will be held from 19.00 in the Main Hall of the University (the Congress venue).

Galileo meets Kepler: Motion on Earth and in the Heavens

29 July, Wednesday, 19.30, Room: C7

Authors:

Art Stinner in collaboration with Juegen Teichmann.

Personae Dramatis:

Galileo Galilei (Scientist and Astronomer) – Peter Heering

Johannes Kepler (Emperial Mathematician and Astronomer) – Juegen Teichmann

Cardinal Robert Bellarmine (Master of Controversial Questions) – Gábor Zemplén

In the spring of 1611, Galileo came to Rome to “exhibit the new discoveries and to explain their great consequences”. Clearly he was referring to the recent discoveries he made about motion and especially the celestial observations of 1609 with his new optical instrument. While in Rome, Galileo also had an audience with Cardinal Bellarmine, a Jesuit and an admirer of Galileo. In the play, Galileo succeeds to arrange a meeting with the Cardinal and Johannes Kepler, who was persuaded to come to Italy for this auspicious occasion. The Cardinal first declines but he is curious to meet the great Kepler and discuss motion on Earth and in the Heavens with the two acknowledged masters of terrestrial and celestial motion. The play is about this fictitious meeting but the discussion is based on the extensive correspondence between Galileo and Kepler and between Galileo and Cardinal Bellarmine.

Organ Concert

30 July, Thursday, 20.00 – 21.00

The organ concert organized exclusively for the participants of the ICHST 2009 Congress will take place at St Stephen’s Basilica. The concert of Istvan Koloss organist, who was honoured with the Pro Arte Assisi award and the Knight’s Cross of the Hungarian Republic in 1982, will surely remain an unforgettable experience for all.

Program:

Old Hungarian Music from the XVII Century

János Wohlmuth: Musette

J.S. Bach: Toccata, Adagio and Fuga C-major

T. Albinoni: Adagio

F. Liszt: St. Stanislas-Fantasy

D. Antalffy: Scherzo

L. Boellmann: Suite Gotique

Optional Evening Programs

Dinner on the Boat "Európa"

28 July, Tuesday, 20.00 – 22.00

address: 1011 Budapest, Szilágyi Dezső tér

price: EUR 60

During the cruise on the River Danube you can enjoy magnificent views of historical Budapest and catch a glimpse of Margaret Island, the Parliament, the Hotel Gellért, the Liberation Monument, the graceful bridges and a number of stunning buildings of Budapest. Besides, you may taste traditional Hungarian and special international meals and drinks.

Congress Dinner

1 August, Saturday, 20.00 – 22.00

address: 1146 Budapest, Dózsa György út 41.

price: EUR 50

The Congress Dinner will be held in the Museum of Fine Arts. It contains one of the best collections in Central Europe, offering visitors a taste of the glories of the past, alongside the splendors of the present.

Optional Tours

Limited number of tickets is available at the Registration Desk.

Meeting point in the registration area.

All tickets are placed in the envelope, which was provided upon registration.

The expected time of return of the full-day tours is 17.30 to the Congress Venue.

Budapest sight-seeing (half-day)

28 July, afternoon (14.00) or 2 August, morning (09.00)

price: EUR 30

You may have an overall view of Budapest, one of the most exciting metropolises of the world with a gorgeous geographic location, full of historical monuments and places of interest during the bus trip.

The Puszta (full-day, lunch included)

29 July, morning (09.00)

price: EUR 80

The tour takes you on a scenic drive through the Great Plains to Kecskemét where you will have a guided walk through the town. Kecskemét is the largest town in the region, with historical monuments, nature reserves and a thriving cultural life.

On the way to Vargatanya, you will be greeted with a traditional welcome drink. During the horse carriage riding you will discover the true Hungarian natural phenomenon „Puszta” and visit a true Hungarian farmer country house. In the framework of a spectacular horse show the horse-herder's tradition will be presented. You'll then enjoy a Hungarian three-course meal with wine at a regular tavern, accompanied with stirring gypsy music.

The Danube Bend / Dunakanyar (full-day, lunch included)

30 July, morning (09.00)

price: EUR 80

Three small old towns crown the picturesque Danube Bend: Szentendre - a unique artists' town, Visegrád - a former royal seat, Esztergom - the former capital of Hungary.

Eger Wine Tour - City and Cellars (full-day, lunch included)

31 July, morning (09.00)

price: EUR 80

With its 175 listed historical monuments, wine-making traditions, Eger, in the north of Hungary, is one of the most popular tourist attractions of the country. After visiting the cultural and architectural sites, it is a great pleasure to venture out to the wine cellars in Szépasszony Valley, west of the town.

Lake Balaton (full-day, lunch included)

1 August, morning (09.00)

price: EUR 80

Lake Balaton, the largest lake in Central Europe, is known as "The Hungarian Sea". Before tasting the famous Hungarian wines of the region, it is well worth visiting the historical sites, the magnificent Tihany peninsula and other places of interest.

General Information

Congress Venue

Budapest University of Technology and Economics (BME), Building K

Address: H-1111 Budapest, Műegyetem rkp. 3-9.

Registration Desk

The registration desk operates in the Aula of Building K.

On-site payments may be settled in cash (EUR or HUF) only. "In-house" ATMs are available in the university building.

Opening hours:

Monday, 27 July: 16.00 – 18.30

Tuesday, 28 July: 07.30 – 18.00

Wednesday, 29 July: 08.00 – 18.00

Thursday, 30 July: 08.00 – 18.00

Friday, 31 July: 08.00 – 18.00

Saturday, 1 August: 08.00 – 18.00

Sunday, 2 August: 09.00 – 13.00

Lunches

The self-service canteen of the university is open daily from 13.00 to 15.00 from 28 July to 1 August. (See the map on the back cover of the Program booklet.)

You can find the menu of the canteen, and the list and map of the nearby restaurants in your Congress bag.

Badges

Please, make sure that you wear your badge at every event you participate in, including coffee breaks and the social events.

Credit Cards, ATM

International credit cards (EC/MC, Visa) are accepted at most hotels, restaurants and shops. ATMs are available in the university building and in many locations nearby and throughout the city.

Speakers' Instruction

The lecture rooms are equipped with a beamer and a laptop. Presenters are requested to upload their presentations to the room laptop if possible by using a USB stick. Laptops are equipped with Windows XP Professional, Powerpoint, Adobe Reader, Windows Media Player and VLC Video Player. Technical assistance will be provided in the meeting rooms.

Internet Access

Computers with Internet access and WiFi are available from 28 July during the congress hours in the Internet Room on Level D.

Public Transport

Public transportation (BKV) is extensive and reliable. Tickets - valid for one ride only - should be purchased in advance (e.g. at metro stations, hotels, news-stands, tobacco shops), since drivers do not sell any. The tickets should be validated (on board or at the entrance gates), and kept, since one must produce them if requested by inspectors on board or at the exit gates.

You may consider buying a carnet of 10 tickets or a pass (for 1/7/14 days or for a month), or a Budapest Card, instead of single tickets. The junction of all the three metro lines is Deák tér. Service time is between 4:30 a.m. and 11.00 p.m. Most bus and tramlines operate until 11pm.

Taxi

The most popular and reliable companies in Budapest are: City Taxi, 6x6 Taxi, Buda-Taxi, Főtaxi, Rádiótaxi, Taxi 2000 and Tele5 Taxi, and between the airport and the city, the Zona Taxi Service.

Personal Insurance

The Organizers of the Congress do not provide insurance and do not take responsibility for any loss, accident or illness that might occur during the Congress or in the course of travel to or from the meeting site.

Medical Center on Duty at the University

In minor emergency cases examination and medical attendance will be provided during the congress hours by an English speaking physician on duty, free of charge.

Important notice: Congress participants are requested to make sure with their health insurance provider to have health insurance coverage valid for Hungary.

Useful Telephone Numbers

(can be dialed without using a card or coins)

Ambulance: 104

Fire Brigade: 107

Police: 105

Overall Emergency: 112

Special Acknowledgement



Federation of Technical and Scientific Societies



Hungarian Academy of Sciences



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National Office for Research and Technology

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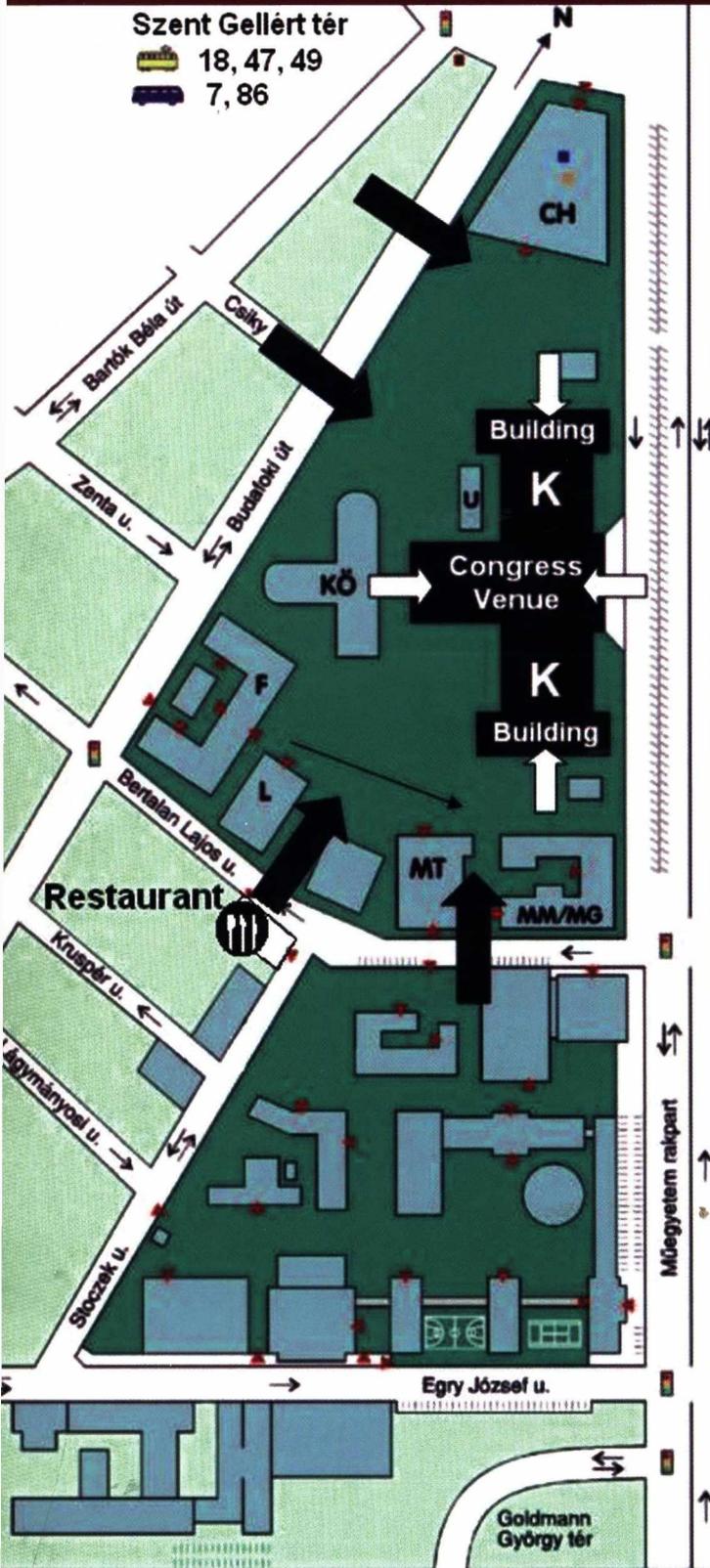
Peggy Windell

gear.

Szent Gellért tér

18, 47, 49

7, 86



Gauge

MAP OF THE VENUE

Irinyi József u. 4, 6

Petőfi hid