

XXXVI Symposium of the Scientific Instrument Commission

26-28 July 2017
Rio de Janeiro, Brazil

- Scientific Instruments Between the Local and the Global -



Photos: Jaime Acioli (MAST collections)

Preliminary Programme

Sunday 23 July 2017
Praia Vermelha Campus
ICHST 2017 Registration

Monday 24 July 2017
Praia Vermelha Campus
ICHST 2017

Tuesday 25 July 2017
Praia Vermelha Campus
ICHST 2017

Wednesday 26 July 2017
Praia Vermelha Campus, Room 13

13.30 **Opening Session**
Silke Ackermann, SIC President
Marcus Granato, LOC Chair

Session 1: Global disciplines and global networks
Chair: Silke Ackermann, University of Oxford, UK

13.45 **Measuring professions and mathematical instruments in early Modern Europe**
Antoni Malet, Universitat Pompeu Fabra, Barcelona, Spain

- 14.00** **Studying and exhibiting instruments of global infrastructures for environmental monitoring and surveillance**
Soraya Boudia, University of Paris Descartes-CERMES3, Paris, France
Sébastien Soubiran, Jardin des Sciences, University of Strasbourg, France
- 14.15** **Discipline building with material culture: Instruments and the history of science in late 20th century Britain**
Sam Alberti, National Museums Scotland, Edinburgh, UK
- 14.30** **Debate**
- 15.00** **Coffee-break**
- Session 2: Global instruments and global technologies**
Chair: Rich Kremmer, Dartmouth University, USA
- 15.30** **Early forms of telescopes, in theory and in practice**
Marvin Bolt, Corning Museum of Glass, New York, USA
Michael Korey, Staatliche Kunstsammlungen Dresden, Germany
- 15.45** **The *Theatrum Astronomicum* of the University of Leiden according to the 1637 Astronomical records by Georg Marggrafe**
Oscar T. Matsuura, MAST, Brazil
- 16.00** **Networks of a new micro-world: Production, trade and ownership of microscopes in the early Dutch Republic**
Huib J. Zuidervaart, Huygens ING (Royal Netherlands Academy of Arts and Sciences - KNAW), Amsterdam, The Netherlands
- 16.15** **The machine that goes 'bing': nineteenth-century uses of telephone instruments in medicine, mining and the military**
Michael Kay, University of Leeds, UK
- 16.30** **Debate**

Thursday 27 July 2017

MAST – Museum of Astronomy and Related Sciences

Session 3: Instruments and politics
Chair: Sam Alberti, National Museums Scotland, UK

- 9.00** **A device to unveil military secrets: the C.I.S.E. Cockcroft-Walton accelerator**
Leonardo Gariboldi, University of Milan, Italy
- 9.15** **Instruments of development: German teaching apparatus and practices at IIT Madras**
Roland Wittje, IIT Madras, Chennai, India
- 9.30** **Did the presence of scientific instruments affect the destiny and workload of liberated Africans? Science and freedom: new evidence about foreign engineers in nineteenth-century Brazil - Minas Gerais**
Télio Cravo, Universidade Estadual de Campinas, Brazil

- 9.45 **From the global to the local: technology transfer from low Earth orbit to Alabama**
Emily Margolis, Johns Hopkins University, USA
- 10.00 **Debate**
- 10.30 **Visit - MAST exhibitions, collections, archives, laboratories**
- 12.30 **Lunch break**
- Session 4: Local instruments, global knowledge**
Chair: Roland Wittje, IIT Madras, India
- 14.00 **Scientific instruments as tools for the transmission of knowledge: the case of a fifteenth-century treatise on the operation of the Musarṭan astrolabe**
Pouyan Shahidi Marnani, Indiana University, Bloomington, USA
- 14.15 **The physics instruments at the Bento de Abreu state school of Araraquara (SP), Brazil: official recommendations (1931/1961), past use and present state**
Maria Cristina Zancul & Elton de Oliveira Barreto, Universidade do Estado de São Paulo - UNESP, Brazil
- 14.30 **Electromagnetic devices in early nineteenth-century Padua**
Sofia Talas & Fanny Marcon, Museum of the History of Physics, University of Padua, Italy
- 14.45 **Debate**
- Session 5: Heritage of science and technology**
Chair: Sofia Talas, University of Padua, Italy
- 15.15 **Science and technology heritage in Portuguese and Brazilian Museums: first results of a new comparison**
Marcus Granato, Victor Abalada & Luisa Maldonado, MAST, Brazil
- 15.30 **Managing and preserving scientific and technological heritage in Cuba: an urgent and difficult task**
Claudia Felipe Torres & Lúbia Diaz Bernal, University of Havana, Cuba
- 15.45 **Cultural heritage of science and technology in Brazilian universities: an introduction to the museums and collections of the Federal University of Rio de Janeiro**
Ethel R. Handfas, Universidade Federal do Estado do Rio de Janeiro, Brazil
- 16.00 **Research institutes in Pernambuco (Brazil): disposal and preservation of science and technology heritage**
Emanuela Sousa Ribeiro, Universidade Federal de Pernambuco, Brazil
- 16.30 **Debate**
- 17.00 **Coffee break**

Session 6: Instruments and the development of ideas in science and technology
Chair: Michael Korey, Staatliche Kunstsammlungen Dresden, Germany

- 17.30** **The role of instruments in the evolution of timekeeping**
Taha Yasin Arslan, Istanbul Medeniyet University, Turkey
- 17.45** **Revamping the solar system: orreries, Copernican armillary spheres, and the idea of 'discovery' in astronomy**
Pedro M. P. Raposo, Adler Planetarium, Chicago, USA
- 18.00** **Quantum mechanics and industrial research: the corroboration of the Casimir Effect**
Ad Maas, Museum Boerhaave, Leiden, The Netherlands
Beto Pimentel, Universidade Federal do Rio de Janeiro, Brazil
- 18.15** **Debate**

Friday 28 July 2017
Praia Vermelha Campus, Room 13

Session 7: Instruments, developers and users
Chair: Marta C. Lourenço, University of Lisbon, Portugal

- 9.00** **Linking past and future: Henrique Morize (1860-1930) and the National Observatory, Brazil**
Maria Lúcia N. M. Loureiro & Ana Beatriz S. Cascalho, MAST, Brazil
- 9.15** **The 'personal' equations of American astronomer Joel Stebbins**
Dana A. Freiburger, University of Wisconsin-Madison, USA
- 9.30** **Research of recent material culture of science at the MAST: the objects from the Centro Brasileiro de Pesquisas Físicas**
Janaina Furtado, MAST, Brazil
- 9.45** **Challenges and opportunities in the study of recent heritage of Science and Technology: two examples of astronomical instrumentation**
Tânia Dominici, MAST, Brazil
- 10.00** **Debate**
- 10.30** **Coffee break**
- 10.45** **SIC Annual General Meeting**
- 12.30** **Group photo**
- 13.00** **Lunch break**

Session 8: Singular instruments, multiple lives
Chair: Pedro Raposo, Adler Planetarium, USA

- 15.30** **From the working world to the museum world: the Keuffel & Esser theodolite, Museum of Topography, Federal University of Pernambuco**
Bruno Melo de Araújo, Federal University of Pernambuco, Brazil
- 15.45** **The three lives of the EAI 8800 Calculator: from nuclear fear to the museum**
Cyrille Foasso, Musée des Arts et Métiers, Paris, France
- 16.00** **Dissemination and influence of the Zeiss Optical Planetarium in the Republic of China (1923-1949)**
Nan Zhang, Shanghai Jiao Tong University, China
- 16.15** **Debate**
- 16.40** **Closing session**
- Richard Kremmer, incoming SIC President
Sofia Talas, incoming SIC Secretary
- 17.00** **Coffee break**

Saturday 29 July 2017
Praia Vermelha Campus
ICHST 2017