



Les chaires internationales
de recherche Blaise Pascal
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Workshop on the history of Time accuracy in Physics and Astronomy

6-7 October 2014

Observatoire de Paris, 77, av. Denfert Rochereau, 75014 Paris

Research Project

« Mobilité des savants et précision des mesures, 16^e-19^e s. »

Chaires Internationales de Recherche “Blaise Pascal”, SYRTE/Observatoire de Paris.

Organising Committee :

Michela Malpangotto (CNRS, SYRTE/Observatoire de Paris)

Meropi Morfouli (SYRTE/ Observatoire de Paris)

Efthymios Nicolaidis (National Hellenic Research Foundation and SYRTE/ Observatoire de Paris)

The Workshop aims to investigate in a multidisciplinary way the historical and philosophical aspects of the time accuracy in physics and astronomy.

It gathers historians and philosophers of science, specialists of time measurement instruments, physicists and astronomers.

The workshop takes place in the frame of the project «Mobility of scientists and accuracy of measurements» and aims to investigate the first theme of the project, this of Time. Based on the historical aspects of accuracy in Time measurement, it will investigate the present *état des lieux* in science and philosophy of science.

At the end of the Workshop a debate «faut-il tuer le temps?» will take place between Carlo Rovelli and Patrick Peter, moderated by Michel Blay. The debate will take place in the frame of the “Conférences du Palais de la découverte”, sponsored by Dunod editions.

Programme

Monday October 6

Morning:

Chair: E. Nicolaidis (National Hellenic Research Foundation and Chaire Internationale Blaise Pascal, SYRTE/ Observatoire de Paris)

9h30 Alexander Jones (New York University)

« **Precision and accuracy in Greco-Roman scientific and lay time observation** »

10h15 Jérôme Bonnin (Université Lille 3)

« **Timekeeping in Greco-Roman Antiquity, a social necessity?** »

11H00 Denis Savoie (Palais de la découverte and SYRTE/Observatoire de Paris)

« **Du gnomon à la méridienne en 25 siècles d'astronomie** »

11h45 Coffee break

12H00 Vincent Jullien (Université de Nantes)

« **Le moment où ils choisirent le temps comme *intentio*. Descartes et Galilée entre 1620 et 1640.** »

12h45 Niccolò Guicciardini (University of Bergamo)

« **Newtonian absolute vs fluxional time** »

Monday October 6

Afternoon:

Chair : M. Malpangotto (CNRS, SYRTE/ Observatoire de Paris)

15h00 Alexi Baker (University of Cambridge)

« **Environment and (non)standardization in early modern expeditionary time** »

15h45 E. Nicolaidis (National Hellenic Research Foundation and Chaire Internationale Blaise Pascal, SYRTE/ Observatoire de Paris)

« **Time and calendar in the Byzantine era: social and astronomical accuracy** »

16h30 Coffee break

16h45 Claus Beisbart (Universität Bern)

« **The Age of the Universe and its Measurement** »

17h30 N. Dimarcq (SYRTE/ Observatoire de Paris)

« **Time and atomic clocks** »

Tuesday October 7

Morning:

Chair: Mike Osborne (Oregon State University)

9h30 Michael Esfeld (Université de Lausanne)

« **Time and the primitive ontology of physics** »

10h15 Jean-Pierre Provost (Université de Nice Sophia Antipolis)

« **An unusual look at three historical issues concerning time and inertia** »

11h00 Christian Bracco (Université de Nice Sophia Antipolis and SYRTE/ Observatoire de Paris)

« **Relativité au premier ordre en V/c : 1895-1905** »

11h45 Coffee break

12h00 Christian Wuthrich (University of California at San Diego)

« **The conspicuous absence of space and time in quantum gravity** »

12h45 Marc Lachièze-Rey (Université Paris 7 Denis Diderot)

« **Time measurements without time** »

Debate: Faut-il tuer le temps?

Tuesday October 7, 19h00

Palais de la Découverte, Avenue Franklin Delano Roosevelt, 75008 Paris

Public debate between Carlo Rovelli (Université de Méditerranée and Centre de physique théorique de Luminy) and Patrick Peter (Institut d'astrophysique de Paris), moderated by Michel Blay (CNRS).

