

INTERNATIONAL CONGRESS
300 ANNIVERSARY GOTTFRIED WILHELM
LEIBNIZ
(Leipzig, 1646 - Hannover, 1716)

21 - 22th January 2016

Organization

Grup de Recerca d'Història de la Ciència i de la Tècnica (Proyecto HAR2013-44643-R)
Departament de Matemàtiques de la Universitat Politècnica de Catalunya



Organization Committee

Joaquim Berenguer

Mónica Blanco

Guillermo Lusa

M^a Rosa Massa

Mary Sol de Mora

Carles Puig-Pla

Antoni Roca-Rosell

Fàtima Romero

Aims

- To commemorate the 300th anniversary of the death of Leibniz from a mathematical point of view and from the area of history of science, analyzing his work and its impact.
- To complete and / or expand the scientific training of future professionals in engineering and mathematics.
- To transmit to participants the perception of mathematics as a useful, human, interdisciplinary, dynamic and heuristic science.

Justification of the activity

The year 2016 will mark the 300th anniversary of the death of one of the most important mathematicians of history, Gottfried Wilhelm Leibniz. The Research Group of the History of Science and Technology, together with the Department of Mathematics at the Polytechnic University of Catalonia, wants to commemorate this anniversary by holding an international congress, bringing together all the tributes that the scientific community will make to him all over the world.

Leibniz's mathematical work includes numerous works on calculus, determinants, combinatorial and gambling. Understanding the mathematical thought of Leibniz is a very complex issue that requires not only the study of his mathematical texts, but also the related philosophical ones where he interpreted the processes of reasoning as algebra of thought, and also the analysis of the many letters and manuscripts recently edited. With this tribute to Leibniz, we aim to acquire both a better understanding of his thinking and his sources, and also the impact of his work since the eighteenth century.

Regarding the lecturers, we are honored by the contribution of three personalities of international prestige, who are experts in Leibniz: Professor Eberhard Knobloch of the Berlin University of Technology, who has been the director of the edition of the mathematical writings of Leibniz from 1976 to 2008 and since 2001 has been the director of the edition of scientific, medical and technical writings of Leibniz; Professor Mary Sol de Mora Charles, Professor of History and Philosophy of Science at the University of the Basque Country, editor of mathematical writings of Leibniz in Spanish, one volume of which has already been published in 2014 and a second will be published soon; Professor David Rabouin, chargé de recherche of SPHERE Laboratory (CNRS, Université Paris Diderot) in Paris, who in 2002 defended his doctoral thesis on Leibniz and his *Mathesis Universalis*, and who currently continues publishing on the mathematics of Leibniz.

The congress will take place on 21 and 22 January 2016 at the School of Industrial Engineering of Barcelona and the Faculty of Mathematics and Statistics of the UPC.

Communications and registration

Registration is free; you must confirm attendance to Maria Rosa Massa (m.rosa.massa@upc.edu) or Antoni Roca-Rosell (antoni.roca-rosell@upc.edu).

Collaborating Entities

Escola Tècnica Superior d'Enginyeria Industrial de Barcelona (UPC), Facultat de Matemàtiques i Estadística (UPC), Càtedra UNESCO de Tècnica i Cultura (UPC), Societat Catalana d'Història de la Ciència i de la Tècnica (IEC), Societat Catalana de Matemàtiques (IEC), Grupo de Historia de las Matemáticas (RSME), Sociedad española Leibniz para estudios del Barroco y la Ilustración (SeL).

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Dijous 21 de gener de 2016

Escola Tècnica Superior d'Enginyeria Industrial de Barcelona

Aula Capella

- 11: 15 h: Benvinguda
- 11: 30 h: Presentació del Congrés
Guillermo Lusa (UPC, Barcelona)
- 12: 00 h: Generality in Leibniz's mathematics
Eberhard Knobloch (Berlin University of Technology, Berlin)
- 13: 30 h: Dinar
- 16: 00 h: The correspondence between Leibniz and the Marquis de L'Hospital: on
some questions regarding the Leibnizian calculus
Mònica Blanco (UPC, Barcelona)
- 16: 30 h: On Leibniz' *characteristica universalis* --considered as a thinking mood--
Sebastià Xambó (UPC, Barcelona)
- 17: 00 h: Simpson and Cerdà: erasing borders between Leibniz and Newton
Joaquim Berenguer (UPC, Barcelona)
- 17: 30 h: Concepciones sobre la matemática, su enseñanza y su aprendizaje en el
Compendio Mathematico de Thomas Vicente Tosca
Antonio M. Oller Marcén (Centro Universitario de la Defensa de
Zaragoza, Zaragoza)
José María Muñoz Escolano (Departamento de Matemáticas –
Universidad de Zaragoza, Zaragoza)
- 18: 00 h: The evolution of some Mathematical Ideas from Mengoli to Leibniz
M^a Rosa Massa Esteve (UPC, Barcelona)

Divendres 22 de gener de 2016
Facultat de Matemàtiques i Estadística
Sala d'Actes

- 10: 45 h: Benvinguda
- 11: 00 h: Leibniz crític de Euclides. El método del *Analisis Situs*
Mary Sol de Mora (UPV/EHU, San Sebastián)
- 12 h: Pausa i cafè
- 12: 30 h: Leibniz as a Universal Mathematician
David Rabouin (Laboratoire SPHERE, CNRS-Université Paris Diderot,
Paris)
- 13: 30 h: Debat i fi del congrés