

# Program

**THURSDAY AUGUST 12**

## Morning session 8:30—12:00

**8:30—9:30**      **OPENING WORDS. PRESENTATION OF THE THEME OF THE CONFERENCE—OPEN QUESTIONS**

**SESSION : WORKING WITH PROBLEMS**

**9:30—10:20**      **Bruno Belhoste**  
University Paris Panthéon-Sorbonne, France  
**Title:** Working with spheres in 3-dimensional space: the culture of problems at Paris Polytechnic School around 1800

**10:20—10:45**      **Break**

**10:45—11:35**      **Renaud Chorlay**  
REHSEIS, SPHERE, CNRS & University Paris Diderot, France  
**Title:** On the Use of Problems: The case of the Cousin Problems (1883 - 1940)

**SESSION : ALGEBRAIC & ANALYTICAL PRACTICES — I**

**11:35—12:00**      **Zhao Jiwei (赵继伟)**  
Department of Mathematics, Northwest University, Xian, China  
**Title:** Some Study on Cardano's Ars Magna

Lunch

## Afternoon session (first part) 13:45—17:50

**SESSION: ALGEBRAIC & ANALYTICAL PRACTICES — I (continued)**

**13:45—14:35**      **Guo Shirong**  
Institute for the History of Science and Technology, Inner Mongolia Normal University, Huhhot, China  
**Title:** The convergent problems of infinite series in Chinese mathematics in the 18-19th centuries

**14:35—15:00**      **Wang Xianfen (王献芬)**  
School of Mathematics and Information Science, Hebei Normal University, Shijiazhuang, China  
**Title:** W.T.Tutte and the renewing of matroid theory

**15:00—15:30**      **Break**

**SESSION: ACTORS' REFLECTIONS ON MATHEMATICAL PRACTICE**

**15:30—16:20**      **Mitsuo Morimoto**  
Wada 1-64-5, Sugunami-ku, Tokyo, 166-0012 JAPAN  
**Title:** Mathematical Philosophy of Takebe Katahiro

**16:20—17:10**      **Karine Chemla**  
REHSEIS—SPHERE, CNRS & University Paris Diderot, Paris, France  
**Title:** Simplicity as a key epistemological value in the development of projective geometry in France (first half of 19th century)

**17:10—17:50**                    **Norbert Schappacher**  
 UNIVERSITE DE STRASBOURG  
**Title:** Remarks on the opposition "concrete" vs. "abstract" in 19th and 20th century mathematics

**Banquet**

**FRIDAY, AUGUST 13, 2010**

**Morning session 8:30—12:10**

**SESSION: ACTORS' REFLECTIONS ON MATHEMATICAL PRACTICE (END)**

**8:30—9:20**                    **Jeremy Gray**  
 Open University, London, UK  
**Title:** Henri Poincaré's reflections on mathematical and scientific practice

**SESSION : STRADDLING DOMAINS**

**9:20—10 :10**                **Thomas Archibald**  
 Simon Fraser University, Vancouver, Canada  
**Title :** Poincaré, Stability Theory, and Saturn's Rings

**10:10—10:30**                **Break**

**10:30—11:20**                **Martina Schneider**  
 Sächsische Akademie der Wissenschaften zu Leipzig, Geschichte der Naturwissenschaften und Mathematik, Leipzig, Germany  
**Title:** Between two disciplines: Van der Waerden and the development of quantum mechanics

**11:20—12 :10**                **Tinne Hoff Kjeldsen**  
 Roskilde University, Copenhagen, Denmark  
**Title:** Two Different Strands of Thought in the Emergence of the Concept of a Convex body: Epistemic Objects and Techniques

**Lunch**

**Afternoon session (first part) 13: 45 —16:40**

**SESSION : ALGEBRAIC & ANALYTICAL PRACTICES —II**

**13:45—14:35**                **Karen Parshall**  
 University of Virginia, Charlottesville, USA  
**Title:** Algebraic Practice in Victorian Britain

**14:35—15:25**                **Ueno Kenji**  
 Seki Kowa Institute of Mathematics, Yokkaichi University, Japan  
**Title :** Theory of algebraic functions in 19th and 20th centuries

**15:25—15:40**                **Break**

**15:40—16:30**                **Jessica Grund Carter**  
 Associate professor, Department of Mathematics and Computer Science, University of Southern Denmark, Campusvej 55, 5230 Odense, Denmark  
**Title:** Introduction of objects: Context and representations

**16:30—16:40**                **Break**

**Afternoon session (second part)—Shorter presentations 16:40—18:20**

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| 16:40—17:00 | <b>Feng Jin (冯进)</b><br>department of Mathematics, Changshu Institute of technology, Changshu, China<br><b>Title:</b> The Formation and the Development of the Linear Algebra Theories   |
| 17:00—17:20 | <b>Ao te gen (敖特根)</b><br>PhD student, Department of Mathematics, Northwest University, Xian, China<br><b>Title:</b> Linear Programming from Von Neumann to G. B. Dantzig  |
| 17:20—17:40 | <b>Zhao Bin (赵斌)</b><br>PhD student, Department of Mathematics, Northwest University, Xian, China<br><b>Title:</b> Origin and formation of biomathematics  |
| 17:40—18:00 | <b>Mou Jinbao (牟金保)</b><br>Graduate student, Department of Mathematics, Northwest University, Xian, China<br><b>Title:</b> The Unification of Non-Euclidean Geometries   |
| 18:00—18:20 | <b>Liu Yaya (刘娅娅)</b><br>Graduate student, Department of Mathematics, Northwest University, Xian, China<br><b>Title:</b> The combination of mathematics and music—the comparison of the origination of the calculation of Temperament between ancient China and Greece |

**SATURDAY, AUGUST 14, 2010****Morning session 8:30—12:00**

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| <b>SESSION: ALGEBRAIC &amp; ANALYTICAL PRACTICES —II (continued)</b> |  |
| 8:30—9:10  | <b>Colin McLarty</b><br>Case Western Reserve University<br><b>Title:</b> Emmy Noether's first great mathematics, and the culmination of first-phase logicism, formalism and intuitionism                           |
| 9:10—9:35  | <b>Yan Chenguang (阎晨光)</b><br>PhD student, School of Mathematics and Information Science, Hebei Normal University, Shijiazhuang, China<br><b>Title:</b> The Analysis of Chevalley's Work in the Class Field Theory |
| 9:35—10:00   | <b>Break</b>   |
| <b>SESSION : REVISITING THE HISTORY OF GALOIS THEORY</b>             |  |
| 10:00—10:20  | <b>Zhao Zengxun (赵增逊)</b><br>Graduate student, Department of Mathematics, Northwest University, Xian, China<br><b>Title:</b> From the Roots Formula to the Resolvent   |

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| 10:20—10:40  | <b>Wang Xiaoyu (王宵瑜)</b> Graduate student, Department of Mathematics, Northwest University, Xian, China<br><b>Title:</b> Gauss's Contribution for Solving Algebraic Equations                     |
| 10:40—11:00  | <b>Wang Xiaofei (王晓斐)</b><br>Graduate student, Department of Mathematics, Northwest University, Xian, China<br><b>Title:</b> The Evolvement of the Thoughts in Abel's Proof                       |
| 1:00—11: 20  | <b>Yang Xian (杨显)</b><br>Graduate student, Department of Mathematics, Northwest University, Xian, China<br><b>Title:</b> Galois's Strategy  |
| 11:20—11:40  | <b>Wang Chang (王昌)</b><br>PhD student, Department of Mathematics, Northwest University, Xian, China<br><b>Title:</b> Artin's Work on Galois Theory  |
| 11:40—12:00  | <b>Discussion</b>   |
| <b>Lunch</b>   |   |
| <b>Afternoon session (first part) 13:45—16:50</b>    |   |
| <b>SESSION : PRACTICES OF COMPUTATION</b>            |   |
| 13:45—14:35  | <b>Leo Corry</b><br>Cohn Institute and Philosophy of Science, Tel Aviv, 69978, Israel<br><b>Title:</b> Theory and Computations in Number Theory in the USA before 1935: A Tale Of Provincial Life |
| 14:35—14:50  | <b>Break</b>  |
| 14:50—15:40  | <b>Don Zagier</b><br>1. Max Planck Institute for Mathematics, Bonn, Germany;<br>2. Collège de France, Paris, France<br><b>Title:</b> Mathematics by thought and by hand, today and in the past    |
| 15:40—16:00  | <b>Break</b>  |
| 16:00—16:50  | <b>FIRST ROUND TABLE ON THE NOTIONS OF MATHEMATICAL PRACTICES</b>   |
| <b>Tour of Xi'an city walls</b>                      |   |
| <b>SUNDAY, AUGUST 15, 2010</b>                       |   |
| <b>Morning session 8:30—12:00</b>                    |   |
| <b>SESSION : THE MAKING OF PROFESSIONAL CULTURES</b> |   |
| 8:30—9:20  | <b>Deborah Kent</b><br>Department of Mathematics, Hillsdale College, 33 E College Street, Hillsdale, MI 49242 USA<br><b>Title:</b> The American Journal of Mathematics: Culture and Practice      |
| 9:20—9:40  | <b>Chen Kesheng (陈克胜)</b>   |

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|  | <p>PhD student, Institute for the History of Science and Technology, Inner Mongolia Normal University, Huhhot, China</p> <p><b>Title:</b> Suan Biao He Bi: the first Textbook of Science Table in China</p>  |
| 9:40—10:00   | <p><b>Marion Cousin</b></p> <p>Laboratoire d'Etude du phenomene scientifique – Mathematics Department, University Lyon I, France</p> <p><b>Title:</b> Mathematics teachers at the beginning of Meiji era—Introduction to a study of the transfers of knowledge occurring during the second part of the 19th century influences on teaching and general practices in geometry</p> |
| 10:00—10:20  | <b>Break</b>   |
| 10:20—11:10  | <p><b>TIAN Miao</b></p> <p>Institute for the History of Natural Science, Chinese Academy of Sciences, Beijing, China</p> <p><b>Title:</b> The Professionalization of Chinese Mathematicians during 1850-1904</p>   |
| 11:10—12 :00   | <p><b>Joseph Dauben</b></p> <p>City University of New York, USA</p> <p><b>Title:</b> China and India : How Each Fashioned a Distinctive Professional Culture of Modern Mathematics</p>   |
| <b>Lunch</b>   |  |
| <b>Afternoon session (first part) 13:45—16:20</b>                        |  |
| <b>SESSION: THE MAKING OF PROFESSIONAL CULTURES (continued)</b>          |  |
| 13:45—14:35  | <p><b>Reinhard Siegmund-Schultze</b></p> <p>University of Agder, College in Kristiansand, Norway</p> <p><b>Title :</b> The rise of applied mathematics in Germany between 1890 and 1930 and changes in the profession of the mathematician</p>   |
| 14:35—14:50  | <b>Break</b>   |
| <b>SESSION : Mathematical practices in war times</b>                     |  |
| 14:50—15:40  | <p><b>June Barrow-Green</b></p> <p>Open University, London, UK</p> <p><b>Title:</b> The First World War as a source of British Mathematical Practice</p>   |
| 15:40—16:20  | <p><b>David Aubin</b></p> <p>University Pierre et Marie Curie, Paris</p> <p><b>Title:</b> Mathematical Practice and Professional Cultures in WWI: The Case of French Ballistics</p>  |
| 16:20—16:40  | <b>Break</b>   |
| <b>Afternoon session (second part)—Shorter presentations 16:40—18:20</b> |  |
| 16:40—17:00  | <p><b>Li Changqing (李长青)</b></p> <p>Department of Physics, Capital Normal University, Beijing, China</p> <p><b>Title:</b> Kant Influenced on Hamilton</p>  |
| 17:00—17:20  | <p><b>Kuang Kuanying (亢宽盈)</b></p> <p>China Research Institute for Science Popularization, Beijing, China</p> <p><b>Title:</b> The Unity of Mathematical Terms on the Earlier Half of 20th Century and Its Analysis</p>  |

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| <b>17:20—17:40</b> | <p><b>Maria da Graça Alves</b><br/>Faculdade de Ciências Sociais, Universidade Católica Portuguesa, Braga, Portugal</p> <p><b>Elza Maria Amaral</b><br/>Departamento de Matemática, Universidade de Trás-os-Montes e Alto Douro, Centro de Matemática da Universidade de Trás-os-Montes e Alto Douro (CM-UTAD), Vila Real, Portugal</p> <p><b>Title:</b> The historical and bibliographical references across the scientific works of Gomes Teixeira (1851-1933)</p> |
| <b>17:40—18:00</b> | <p><b>Boris Chendov</b></p> <p><b>Title:</b> On Logical and Philosophical Foundations of Mathematics – its Historical Development from Boole to Gödel (1847–1830) and an contemporary approach to the problem</p>  |
| <b>18:00—18:20</b> | <p><b>Xu Meizhen (许美珍)</b><br/>School of Science, Inner Mongolia University of Technology, Huhhot, China</p> <p><b>Title:</b> Development of the Theory of Self-Adjoint Domains of Ordinary Differential Operators</p>   |

## MONDAY, AUGUST 16, 2010

### Morning session 8:30—12:00

#### SESSION: MATHEMATICAL PRACTICES WITH DATA

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| <b>8:30—9:20</b>   | <p><b>Theodore Porter</b><br/>Professor, Department of history, University of California, Los Angeles, (UCLA), USA</p> <p><b>Title :</b> Mathematics and the Data-Driven Science</p>                    |
| <b>9:20—10:00</b>  | <p><b>Andrea Bréard</b></p> <p><b>Title:</b> The first generation of “statisticians” in early 20th century China: a multicultural issue</p>   |
| <b>10:00—10:30</b> | <b>Break</b>  |
| <b>10:30—10:55</b> | <p><b>Zhao Chenyang (赵晨阳)</b><br/>PhD student, Department of Mathematics, Northwest University, Xian, China</p> <p><b>Title:</b> Behrens-Fisher Problem and the Contribution of Pao-Lu Hsu</p>          |
| <b>10:55—11:35</b> | <p><b>Marie-José Durand-Richard</b><br/>REHSEIS-SPHERE, CNRS &amp; U. Paris 7</p> <p><b>Title:</b> Mechanization of Tide Tables between Great-Britain and France in the 2d part of the 19th century</p> |
| <b>11:35—12:00</b> | <p><b>Nie Shuyuan (聂淑媛)</b><br/>PhD student, Department of Mathematics, Northwest University, Xian, China</p>   |

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|                                      | <b>Title:</b> The Historical Research about Yule's First Establishing Regression Analysis Method in Time Series  |
| Lunch                                |  |
| <b>Afternoon session 13:45—17:00</b> |  |
| <b>SESSION: CULTURES OF LOGIC</b>    |  |
| <b>13:45—14:35</b>                   | <b>Ogawa Tsukane</b><br>Department of Environmental and Information sciences, Yokkaichi University, Japan<br><b>Title:</b> Methods and Logic in Traditional Japanese mathematics               |
| <b>14:35—14:55</b>                   | <b>Zhou Chang (周畅)</b><br>PhD student, Department of Mathematics, Northwest University, Xian, China<br><b>Title:</b> On the masterpiece of inductive reasoning in East Asia: Tetsujutsu Sankei |
| <b>14:55—15:10</b>                   | <b>Break</b>   |
| <b>15:10—16:00</b>                   | <b>Ju Shi'er (鞠实儿)</b> Institute of logic and cognition, Sun Yat-sen University, Guangzhou, P.R.China<br><b>Title:</b> The Cultural Relativity of Logic——From an ethnographic point of view    |
| <b>16:00—16:50</b>                   | <b>SECOND ROUND TABLE ON THE NOTIONS OF MATHEMATICAL CULTURES</b>  |
| <b>16:50</b>                         | <b>CLOSING CEREMONY</b>  |
| Banquet                              |  |