Course 206

COURSE 206 - NEW FRONTIERS FOR METROLOGY: FROM BIOLOGY AND CHEMISTRY TO QUANTUM AND DATA SCIENCE
4 - 13 July 2019

Directors
Martin J.T. Milton - BIPM, Paris (France)
Diederik S. Wiersma - LENS, Sesto Fiorentino FI and INRiM, Torino (Italy)
Carl J. Williams - NIST, Gaithersburg (USA)

Scientific Secretary
Michela Sega - INRiM, Torino (Italy)

Modules and Topics
Module I Physical metrology
The realization of the unit of mass, the Avogadro project, measuring electricity, optical clocks with trapped ions and test of the equivalence principle with optical clocks, time scale for metrology and navigation systems, radiometry, fotometry.

Module II Fundamental metrology
Measurement uncertainty, mathematical and statistical tools for time varying quantities, global traceability, big data, metrology at the international stage, the SI, temperature measurements beyond ITS-90.

Module III Quality of life
Applications of metrology in chemistry and biology, radiation dosimetry, global temperature measurement, clinical chemistry, atomic weights of the elements, radiactivity metrology, reference materials in chemistry, metrological application of NMR and qNMR in organic analysis.

Lecturers
Martin J.T. Milton - BIPM, Paris (France)
Diederik S. Wiersma - LENS, Sesto Fiorentino FI and INRiM, Torino (Italy)
Carl J. Williams - NIST, Gaithersburg (USA)
Ekkehard Peik - PTB, Braunschweig (Germany)
Patrizia Tavella - BIPM, Paris (France)
Marc-Olivier André - METAS, Berna-Wabern (Switzerland)
Enrico Massa - INRiM, Torino (Italy)
William Phillips - NIST, Gaithersburg (USA)
Walter Bich - INRiM, Torino (Italy)
Michael De Podesta - NPL, Teddington (UK)
Andy Henson - BIPM, Paris (France)
Juris Meija - NRC, Ottawa (Canada)
Steven Judge - BIPM, Paris (France)
Karen Phinney - NIST, Gaithersburg (USA)
Steven Westwood - BIPM, Paris (France)
Riccardo Zecchina
Barry M. Wood - NRC, Ottawa (Canada)
Gael Obein - LNE-Cnam, La Plaine Saint-Denis (France)

Seminar Speakers
Massimo Inguscio - CNR, Roma (Italy)
Paolo Brenni - CNR and Fondazione Scienza e Tecnica, Firenze (Italy)

Deadline for applications: 18 April 2019

Correspondence and application forms should be sent to:
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Participation fees and arrival and departure days:
Participants can apply for the whole Course (Module I, II and III) or for one of the two intersected Courses (Module I and II or Module II and III). Module II is mandatory for each of the Courses. The registration fee (attendance, board, lodging and Proceedings) for the whole Course is €1400,00 VAT included (Wednesday 3 July to Saturday 13 July: arrival and departure days). The registration fee for each intersected Course is €900,00 VAT included (Wednesday 3 July to Wednesday 10 July or Sunday 7 July to Saturday 13 July: arrival and departure days).