



Testing the Equivalence Principle MICROSCOPE Colloquium II

Palaiseau 29-30 January 2013

Tuesday 29 January

09:00 – 09:25 Coffee

Chair: Sylvie Léon-Hirtz

09:25 – 09:30 *Welcome, agenda, practical information (P. Touboul)*

09:30 – 09:40 *Welcome (S. Leon-Hirtz)*

09:40 – 10:05 *Equivalence Principle Violations and Couplings of a Light Dilaton (T. Damour)*

10:05 – 10:30 *Searching for new forces (Pierre Fayet)*

10:30 – 10:55 *MICROSCOPE and Neutrinos (E. Fishbach)*

10:55 – 11:15 Coffee break

11:15 – 11:40 *Torsion-balance tests of the Weak Equivalence Principle (E. Adelberger)*

11:40 – 12:05 *A covariant approach to a violation of the Weak Equivalence (C. Lämmerzahl)*

12:05 – 12:30 *Equivalence Principle and Matter Wave Interferometry (L. Blanchet)*

12:30 – 14:00 Lunch

Chair: Claus Lämmerzahl

14:00 – 14:25 *Casimir effect and short-range gravity tests (S. Reynaud)*

14:25 – 14:45 *A unified description of screened modified gravity (Ph. Brax)*

14:45 – 15:05 *"Mass" in a Quantum International System of Units (B. Julia)*

15:05 – 15:30 *MICROSCOPE Mission Overview (P. Touboul)*

15:30 – 15:50 *MICROSCOPE Mission and Satellite Configuration (M. Bach)*

15:50 – 16:15 Coffee break

16:15 – 16:35 *MICROSCOPE Payload Description (M. Rodrigues)*

16:35 – 16:55 *T-SAGE sensor core Metrology (V. Lebat)*

16:55 – 17:15 *Instrument & Mission Performance (R. Chhun)*

17:15 – 17:35 *EP test experiment Environment (A. Robert)*

17:35 – 17:55 *MICROSCOPE Drag free and Attitude Control System (P. Prieur)*



Testing the Equivalence Principle MICROSCOPE Colloquium II

Palaiseau 29-30 January 2013

Wednesday 30 January

08:30 – 09:00 Coffee

Chair: Luc Blanchet

09:00 – 09:25 *Future EP tests in space (T. Sumner)*

09:25 – 09:45 *On the universality of free fall, the equivalence principle and the gravitational redshift (A. Nobili)*

09:45 – 10:10 *Weak Equivalence Principle test with atom interferometers (A. Bertoldi)*

10:10 – 10:30 *The STE-QUEST Mission: Design aspects of Spacecraft, Science Links, and Precise Orbit Determination (G. Hechenblaikner)*

10:30 – 11:00 Coffee break

11:00 – 11:20 *MICROSCOPE electronics architecture & performance (D. Boulanger)*

11:20 – 11:40 *Free Fall Test Overview (H. Selig and F. Liorzou)*

11:40 – 12:05 *GRACE & GOCE experience (B. Christophe)*

12:05 – 12:25 *MICROSCOPE Mission operational concept (P.Y. Guidotti)*

12:25 – 12:45 *Data simulation for MICROSCOPE (G. Metris)*

12:45 – 14:00 Lunch

Chair: Serge Reynaud

14:00 – 14:20 *Mission Scenario (P. Touboul)*

14:20 – 14:40 *Data processing Strategy (G. Metris)*

14:40 – 15:00 *Preparation of data processing for MICROSCOPE (S. Bremer)*

15:00 – 15:20 *In flight calibration analysis (A. Levy)*

15:20 – 15:40 *Tone errors, Data lacks and Observation Period (E. Hardy)*

15:40 – 16:00 Coffee break

16:00 – 16:10 *MICROSCOPE science management (P. Touboul)*

16:10 – 17:15 *Discussion (all)*

Posters

- *MICROSCOPE Sensor Unit Qualification (E. Perrot)*
- *Interferometry with Bose-Einstein condensates in microgravity (N. Gaaloul)*
- *MAQRO - Testing the foundations of quantum physics in space (R. Kaltenbaek)*
- *Fabrication and Validation of the MICROSCOPE Test Masses (D. Hagedorn)*

