

First workshop

THEORY AND MODEL FOR THE NEW GENERATION OF THE LUNAR LASER RANGING DATA

ISSI, Bern, Switzerland



16-19 February, 2010

Oral Presentations: 30 min slot with 20 min presentation +10 min discussion
 60 min slot with 45 min presentation +15 min discussion

Day 1: Tuesday, February 16, 2010 Morning session Chair: Sergei Klioner

Maurizio Falanga [program manager]	Welcome to ISSI. Organizational aspects of the workshop.	9:00 – 9:20
Sergei Kopeikin	Overview the workshop topics	9:20 – 9:30
Juergen Mueller	Current activities and status of Lunar Laser Ranging worldwide	9:30 – 10:00
Franz Hofmann	General procedure, data processing, software and models for LLR analysis	10:00 – 10:30
Jacques Laskar & Hervé Manche	The Lunar and Planetary ephemeris code INPOP	10:30 – 11:00
Break		
Philipp Gläser	LRO Laser Altimetry Experiment	11:30 – 12:00
Slava Turyshev	Laser Ranging Technology - worldwide efforts	12:00 – 12:30
Douglas Currie	Lunar Laser Ranging Array for the 21st Century	12:30 – 13:00
Lunch		
Day 1: Tuesday, February 16, 2010 Afternoon session Chair: Nicole Capitaine		
Schreiber Ulrich	One-Way Lunar Laser Ranging and Time Transfer	14:00 – 14:30
Sebastien Bouquillon	A review of the ELP semi-analytical solution for the orbital motion of the Moon	14:30 – 15:00
Liliane Biskupek	Determination of Earth orientation parameters, nutation, and UT0 from LLR data	15:00 – 15:30
Wassila Zerhouni & Nicole Capitaine	Celestial pole offsets from lunar laser ranging and comparison with VLBI	15:30 – 16:00
Alexander Gusev & Hiroto Noda	Prospects for Lunar Laser Ranging in Russia and in Japan	16:00 – 16:30
Jean-Marie Torre & Tom Murphy	APOLLO and OCA LLR stations: Current status, results and future improvements	16:30 – 17:00

Welcome party starts at 17:00 in ISSI (exact location will be announced at the morning session)

Day 2: Wednesday, February 17, 2010 Morning session Chair: Jürgen Müller

Natalia Petrova	New analytic theory for lunar libration	9:00 – 9:30
Nicolas Rambaux	Dynamically active Moon	9:30 – 10:00
Alberto Escapa & Juan Getino	I. The Hamiltonian theory of the rotation of the non-rigid Earth.	10:00 – 11:00
Break		
Juan Getino & Alberto Escapa	II. Second – order extension of the Hamiltonian theory of the rotation of the non-rigid Earth	11:30 – 12:30
Alexander Gusev	Physical librations of the two-layer Moon	12:30 – 13:00
Lunch		
<i>The city of Bern site seeing, visiting Einstein's museum, etc.</i>		

Day 3: Thursday, February 18, 2010 Morning session Chair: Alexander Gusev

Sergei Kopeikin	Post-Newtonian reference frames and equations of motion of the Earth-Moon system in global and local coordinates	9:00 – 10:00
Michael Soffel	LLR and gravito-magnetism	10:00 – 10:30
Sergei Klioner	Post-Newtonian theory of rotational motion for LLR	10:30 – 11:00
Break		
Erricos Pavlis	Earth's gravity field models for testing general relativity	11:30 – 12:00
Ignazio Ciufolini	LAGEOS/LARES test of gravitomagnetic field of the Earth	12:00 – 13:00
Lunch		
Day 3: Thursday, February 18, 2010 Afternoon session Chair: Juan Getino		
Slava Turyshev	Experimental tests of general relativity: recent progress and future directions	14:00 – 14:30
Alexander Zakharov	Solar system constraints on alternative theories of gravity	14:30 – 15:00
Agnes Fienga	The planetary ephemerides INPOP and General Relativity	15:00 – 15:30
Closing Remarks.		

Day 4: Friday, February 19, 2010 Splinter Meeting Chair: Sergei Kopeikin

Splinter Meeting is on the progress and problems in the rotational theories of Moon and Earth with more emphasis on yet unsolved problems and uncertain theoretical/experimental issues.

Participants: (shown only those who confirmed, others are welcome to join)

Sergei Kopeikin
Nicole Capitaine
Nicolas Rambaux
Alberto Escapa
Juan Getino
Slava Turyshev
Alexander Gusev
Natalia Petrova
Erricos Pavlis
Liliane Biskupek
Franz Hofmann
Sebastien Bouquillon

Topics for discussion: proposals are invited and should be send to Sergei Kopeikin