



Satellite, Lunar and Planetary Laser Ranging: Characterizing the Space Segment



Outline

- ◆ Uniquely, this Workshop is dedicated to the **space segment**:
- ◆ new concepts, new designs, and new laboratory testing capabilities that will give us exciting opportunities to address our evolving requirements.
- ◆ We must continue to look for new scientific applications for our technique as well as improving to the mm level of precision and accuracy our underpinning geodetic laser ranging observations
- ◆ This week, we work on the challenges of new space segments and on a better understanding and exploitation of existing ones.

Outline of Sessions: Monday

- ◆ **SESSION 1: INTRODUCTION & Keynotes**
 - ◆ **Historical Overview and Path to Present Day Requirements**
 - ◆ **Scientific Accomplishments of the Past and Requirements for the Future**
 - ◆ **A Tutorial on Retroreflectors and Arrays for SLR**
- ◆ **SESSION 2: GROUND STATION PERFORMANCE FROM CURRENT SATELLITE ARRAYS**
- ◆ **Working Group meetings**

Outline of Sessions: Tuesday

- ◆ **SESSIONS 3&4: SATELLITE SIGNATURES AND CENTRE-OF-MASS ISSUES**

- ◆ **SESSION 5: LABORATORY TESTING AND CHARACTERIZATION - SCF_LAB: the Satellite/Lunar/GNSS laser ranging and altimetry Characterization Facilities' LABORatory**

Outline of Sessions: Wednesday

- ◆ **JOINT ITLW-12 AND ETRUSCO-2 WORKSHOP**
 - ◆ **SLR TRACKING OF GNSS CONSTELLATIONS**
 - ◆ **ASI-INFN ETRUSCO-2 PROJECT OF TECHNOLOGICAL DEVELOPMENT AND TEST OF SLR PAYLOADS FOR GNSS SATELLITES**
 - ◆ **Visit to SCF_LAB**

Outline of Sessions: Thursday

- ◆ **SESSION 6: RANGING EXPERIENCE ON THE LUNAR REFLECTORS**
 - ◆ New Lunar array designs and testing, recent LLR operations
- ◆ **SESSION 7: ARRAY AND CORNER CUBE MANUFACTURERS AND SPECIFICATIONS & SPACE DEBRIS**
- ◆ **SESSION 8: NOVEL ARRAY DESIGNS**
- ◆ **ILRS GB meeting**

Outline of Sessions: Friday

- ◆ **SESSION 9: TRANSPONDERS AND RECEIVERS**
 - ◆ Time-transfer, one-way to LRO and to planetary missions

- ◆ **SESSION 10: WRAP-UP SESSION WITH RECOMMENDATIONS AND CONCLUSIONS**
 - ◆ More detail next

General - guidelines

- ◆ This will be a busy week!
- ◆ The onus is on session chairs to set the scope of their Session in their Introduction and to encourage discussion:
 - ◆ But **must** keep discussions on-theme
 - ◆ Must keep Sessions **on time**
- ◆ Please also remember that for many, English is not a first language

Wrap-up Session and Proceedings

- ◆ On Friday, Session Chairs will take five minutes each to summarise:
 - ◆ What were the important issues raised in their Session
 - ◆ What actions need to be taken forward from presentations and discussions

Wrap-up Session and Proceedings

- ◆ Proceedings: based on Session Summaries:
 - ◆ **One page** maximum on main points, conclusions and actions
- ◆ And on all the presentations:
 - ◆ **Two page** maximum from each, including posters
- ◆ Timescale – **two weeks** after workshop (26th November)
 - ◆ Sessions' chairs to ensure contributions are in on time
 - ◆ Electronic version available straight away, hardcopy later
 - ◆ Use 11pt font
- ◆ Enjoy the week!