





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

International Technical Laser Workshop, Laboratori Nazional de Frascati (LNF), Italy

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

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Outline of Sessions: Friday

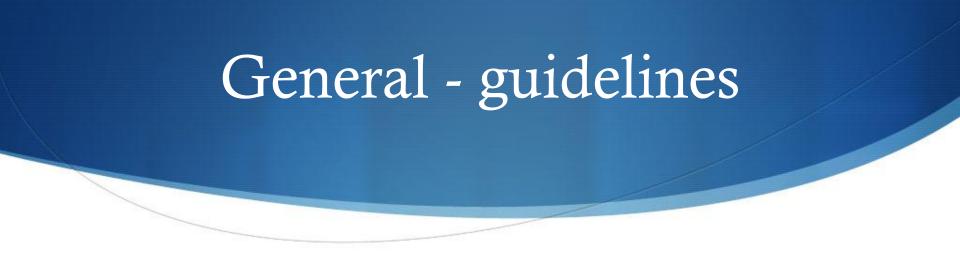
SESSION 9: TRANSPONDERS AND RECEIVERS

• Time-transfer, one-way to LRO and to planetary missions

SESSION 10: WRAP-UP SESSION WITH RECOMMENDATIONS AND CONCLUSIONS

• More detail next

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- 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!