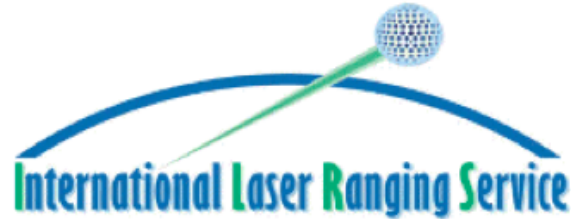


ITLW-12 / ETRUSCO-2

WELCOME AND LOGISTICS



International Technical Laser Workshop 2012 (ITLW-12)

“Satellite, Lunar and Planetary Laser Ranging: characterizing the space segment”

Frascati National Laboratories of the INFN-LNF,

Frascati (Rome), Italy (<http://www.lnf.infn.it/user.html>)

November 5-9, 2012,

in conjunction with a one-day Workshop on



“ASI-INFN ETRUSCO-2 Project of Technological Development and Test of SLR Payloads for GNSS Satellites”

November 7, 2012

Simone Dell’Agnello (INFN-LNF),
Chairman of ITLW-12 LOC, PI of ETRUSCO-2

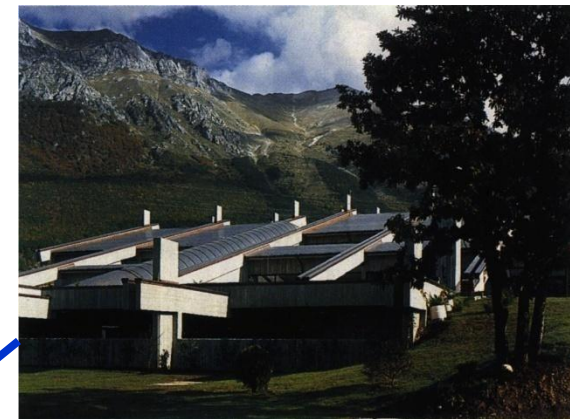
Frascati (Rome), Italy, November 5, 2012



Legnaro



Gran Sasso



20 Sections
11 Affiliated Groups

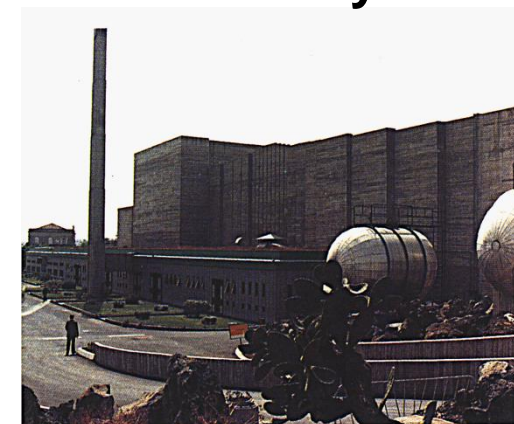
4 National Laboratories

Frascati



VIRGO-EGO
European
Gravitational
Observatory

**Laboratori del Sud
(Catania)**



ITWL-12 / ETRUSCO-2

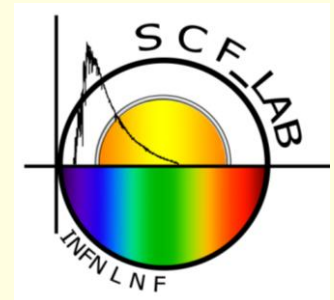
Workshops
are hosted by



SCF_LAB

Satellite/Lunar/GNSS

laser ranging and altimetry

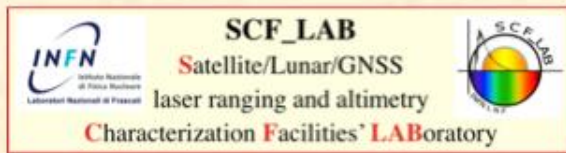


Characterization **F**acilities' **LAB**oratory

**ETRUSCO-2 @ SCF_LAB:
an ASI-INFN Project of
Technological Development and
Test of SLR Payloads for GNSS
Satellites**

Contract ASI-INFN n. I/077/09/0

PI: S. Dell'Agnello (INFN-LNF)
Co-PIs: R. Vittori (ESA, AMI, INFN-LNF)
G. Bianco (ASI-CGS & ILRS)



Prime Contractor:

INFN (Italian National Institute for Nuclear Physics)

Partners and National Collaborations:

ASI-CGS (G. Bianco et al)

University of Bologna (S. Zerbini)

G&A Engineering srl

Kayser Italia srl

Explora srl

Aeronautica Militare Italiana (AMI; R.Vittori)

International Collaborations:

Univ. of Maryland (UMD) (D. Currie et al)

International Laser Ranging Service
(ILRS, M. Pearlman et al)

NASA-GSFC, (J. McGarry et al)



*International Technical Laser Workshop
2012 (ITLW-12) on*

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

November 5-9, 2012

In conjunction with a one-day Workshop

**“ASI-INFN ETRUSCO-2 Project of
Technological Development and
Test of SLR Payloads for GNSS
Satellites”**

November 7, 2012

Frascati National Laboratories of the INFN
Frascati (Rome), Italy



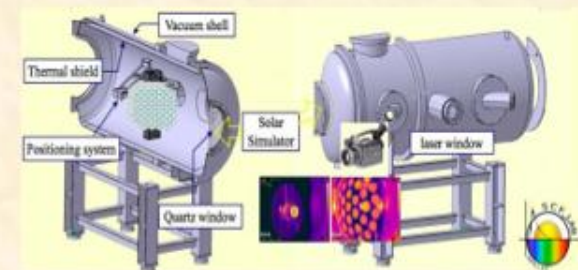
ETRUSCO-2

*(Extra Terrestrial Ranging to Unified Satellite
Constellations - 2)*

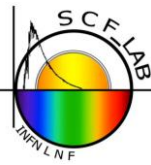
- Background: continuation of ETRUSCO interdisciplinary R&D project of INFN (2006-09), dedicated to the characterization of Satellite Laser Ranging (SLR) of Cube Corner Retroreflectors (CCRs) for the Global Navigation Satellite System (GNSS).
- ETRUSCO2: Project of technological development (2010-13) in response to 2007 nation-wide call by ASI. Main goal: development and SCF-Test of GNSS Retroreflector Arrays, targeted to Galileo & GPS-3, open to other GNSS.

**SCF: a Unique and Unprecedented OGSE
(Optical Ground Support Equipment)**

Our key experimental innovation is the concurrent measurement and modeling of the optical Far Field Diffraction Pattern (FFDP) and the temperature distribution of the SLR payloads under accurately laboratory-simulated space conditions produced with a close-match solar simulator. The SCF (Satellite/lunar/GNSS laser ranging and altimetry Characterization Facility) is a set of specialized instruments, which make possible the recreation of a realistic space environment around the tested CCRs and the concurrent monitoring of temperature variations of the tested payloads and of optical performance, in terms of FFDP and wavefront Interferogram. This new industry-standard space test is called SCF-Test, a background intellectual property of INFN [1]. The SCF is very versatile for its large number of measurement ports (side and back), very long horizontal translations and capabilities for lunar laser ranging (LLR) and laser altimetry CCR payloads.

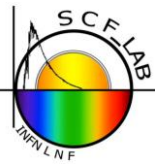


Schematic view of SCF cryostat with: IR picture of the LAGEOS Sector, IR camera and SCF_LAB logo.



- 110 registered participants
 - **You are kindly requested to register in room T75**
 - Coffee breaks and lunches in front of Auditorium
 - PLEASE LET US KNOW IF YOU DO NOT WANT YOUR SLIDES TO BE POSTED ON THE WEB
- Email Simone Dell’Agnello and Silvia Colasanti
- Morning: **SLR Tracking of GNSS Constellations**
 - Afternoon: **ASI-INFN project ETRUSCO-2@SCF_LAB**
 - **Workshops’ photo**
 - **Visit of SCF_LAB & other LNF facilities**
 - Photos inside SCF_LAB are not allowed
 - **Social Dinner**

ITLW-12 / ETRUSCO-2 Social Dinner



With view on Lake Albano

