

#### CALL FOR PAPERS

Potential authors are invited to submit a 4-page camera-ready manuscript related to one of the Conference topics. Manuscripts will be reviewed according to scientific content, suitability for the Conference, and form.

#### EXHIBITION

Commercial exhibits of pertinent equipment, material, and literature are solicited.

#### DEADLINES

Manuscript submission	<i>March 1, 2004</i>
Notification of acceptance	<i>March 22, 2004</i>
Hotel reservation	<i>April 12, 2004</i>
Conference pre-registration	<i>April 12, 2004</i>

#### CONTACTS

Questions regarding local arrangements

ILRC22 Conference Secretariat  
INCONGRESS

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Questions regarding technical program

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The 22nd ILRC will be held in Matera, a small city in the Basilicata Region in Southern Italy. A place inhabited from immemorial time, where it's easy to recall the history of Man since the paleolithic age, in the neolithic villages and the vast urban areas of the "Civita" and "Sassi".

The Gravina, the Murgia and more than 120 rupestrian churches with Byzantine frescos make this place a unique habitat. For its uniqueness, UNESCO has listed it among its 365 official World Heritage List locations.



## 22<sup>nd</sup> INTERNATIONAL LASER RADAR CONFERENCE

**July 12-16, 2004**  
**MATERA - ITALY**



<http://ilrc22.imaa.cnr.it>



The International Laser Radar Conference (ILRC) traditionally is the Conference where scientists from all over the world working in the field of laser remote sensing applied to the atmosphere, earth, and oceans meet together over the years. This Conference is held biennially under the auspices of the International Coordination-group for Laser Atmospheric Studies (ICLAS), of the International Radiation Commission, International Association of Meteorology and Atmospheric Physics.

### STEERING COMMITTEE

- **Gelsomina Pappalardo**, Istituto di Metodologie per l'Analisi Ambientale IMAA-CNR, Italy (*Conference chairperson*)
- **Errico Armandillo**, ESA-ESTEC, The Netherlands
- **Vincenzo Cuomo**, IMAA - CNR, and University of Basilicata, Italy
- **Geary Schwemmer**, NASA Goddard Space Flight Center, USA

### PROGRAM COMMITTEE

- **Albert Ansmann**, Institute for Tropospheric Research, Germany
- **Juan Carlos Antuna**, Instituto de Meteorología, Camagüey, Cuba
- **Arnoud Apituley \***, RIVM - National Institute of Public Health and the Environment, The Netherlands
- **Yuri Arshinov \***, Institute for Atmospheric Optics, Russia
- **Luc R. Bissonnette \***, Defence R&D - Valcartier, Canada
- **Jens Boesenberg \***, Max-Planck-Institut für Meteorologie, Germany
- **Edward V. Browell \***, NASA Langley Research Center, USA
- **Allan I. Carswell**, Optech Incorporated and York University, Toronto, Canada
- **Giovanna Cecchi**, IFAC-CNR, Florence, Italy
- **Gerhard Ehret \***, Institut für Physik der Atmosphäre DLR, Oberpfaffenhofen, Germany
- **Franco Einaudi**, NASA Goddard Space Flight Center, USA
- **Edwin W. Eloranta**, University of Wisconsin at Madison, USA
- **Richard A. Ferrare**, NASA Langley Research Center, USA
- **Giorgio Fiocco**, Università di Roma "La Sapienza", Rome, Italy
- **Pierre H. Flamant \***, Ecole Polytechnique, Palaiseau, France
- **Bruce M. Gentry**, NASA Goddard Space Flight Center, USA
- **Raymond M. Hoff**, University of Maryland Baltimore County, USA
- **Janet Intrieri**, NOAA Environmental Technology Laboratory, USA
- **Philippe Keckhut**, Service d'Aéronomie - Institut Pierre Simon Laplace (IPSL), France
- **Patrick McCormick \***, Hampton University, USA
- **Robert T. Menzies \***, NASA Jet Propulsion Laboratory, USA (*president of ICLAS*)

- **Roland Meynart**, ESA - Directorate of Earth Observation Programmes, Noordwijk, The Netherlands
- **Chibao Nagasawa \***, Tokyo Metropolitan University, Japan
- **Alexandros Papayannis**, Ethnikon Metsovion Polytechnion Athinon, Athens, Greece
- **Gelsomina Pappalardo \***, IMAA-CNR, Potenza, Italy
- **Jacques Pelon**, CNRS Service d'Aéronomie, Université Pierre et Marie Curie, Paris, France
- **C. Russell Philbrick**, Pennsylvania State University, USA
- **Giovanni Rum**, ASI (Italian Space Agency)
- **Kenneth Sassen**, University of Alaska, Fairbanks, Alaska, USA
- **Uendra Singh \***, NASA Langley Research Center, USA
- **Nicola Spinelli**, Istituto Nazionale per la Fisica della Materia, Napoli, Italy
- **Leopoldo Stefanutti**, Geophysica-GEIE
- **Nobuo Sugimoto \***, National Institute for Environmental Studies, Tsukuba, Japan
- **Geraint Vaughan**, Physics Department, University of Wales, Aberystwyth, United Kingdom
- **Ulla Wandinger \***, Institute for Tropospheric Research, Germany
- **David N. Whiteman**, NASA Goddard Space Flight Center, USA
- **Jean-Pierre Wolf \***, Université Claude Bernard Lyon 1, Villeurbanne, France
- **Stuart Young \***, CSIRO Atmospheric Research, Aspendale Victoria, Australia
- **Jun Zhou \***, Anhui Institute of Optics and Fine Mechanics, Chinese Academy of Sciences, Hefei, China

*\*Members of the International Coordination-group for Laser Atmospheric Studies (ICLAS)*

### ORGANIZING COMMITTEE

- **Aldo Amodeo**, IMAA-CNR, Italy (*chairman*)
- **Gelsomina Pappalardo**, IMAA-CNR, Italy (*co-chair*)
- **Filippo Cristallo**, IMAA-CNR, Italy
- **Paolo Di Girolamo**, University of Basilicata, Italy
- **Vincenzo Lapenna**, IMAA-CNR, Italy

### TRAVEL GRANT AWARD COMMITTEE

- **Ulla Wandinger**, Institute for Tropospheric Research, Germany (*chairperson*)
- **Vincenzo Berardi**, University of Bari, Italy
- **Paolo Di Girolamo**, University of Basilicata, Italy

### TOPICS

#### Lidar technologies and methods

- Laser sources (solid state, eye safe, fiber, spaceborne, etc.)
- Lidar components (mirrors, space mirrors, detectors, imagers, trackers, etc.)
- Methodologies (DIAL, Raman, coherent, polarization, high spectral resolution, multiple scattering, fluorescence, etc.)
- Retrieval (inversion techniques, primary and secondary products, etc.)
- New lidar applications and methods
- New technologies
- Sensor synergy

#### Fundamental measurements

- Aerosols and clouds (tropospheric and stratospheric, mapping, particle concentration and size, depolarization, liquid or solid phase, ...)
- Atmospheric water vapour
- Temperature
- Trace gases and chemistry (Ozone, green house gases, ...)
- Atmospheric wind and turbulence

#### Process studies and applications using lidar data

- Boundary layer dynamics and flux measurements
- Atmospheric dynamics, radiative transfer, radiation budget, ...
- Climate change and radiative forcing
- Global cloud and aerosol observations
- Atmospheric chemistry and transport
- Stratospheric ozone loss
- Meteorological processes
- Weather forecast and data assimilation
- Terrain mapping, vegetation, crustal dynamics
- Hydrosphere & Cryosphere applications - water salinity, ice pack, water pollution, etc.
- Stratospheric and Mesospheric applications (Middle atmosphere)
- Commercial applications

#### Networking

- Transport of aerosols, dusts, pollution
- Long-term observations
- Global monitoring (ground based, aircraft and satellite observations)
- Future needs

#### Space programs

- Current programs
- Planned programs
- Future scientific and technical challenges
- Coordination with ground-based lidar stations

