

**Cosimo Stallo**

**IEEE AESS Graduate Student  
and GOLD Representative**

## **Outline**

- GOLD for GOLD Tutorials**
- ISACONAS 2013**

# IEEE AESS GOLD for GOLD Tutorials

The **first GOLD for GOLD event** was announced on December 12 2011 in Sala del Teatro at Villa Mondragone, Frascati (Rome) with two tutorials taken by GOLD AESS members for GOLD AESS people:

**Sense & Avoid Systems: How to insert Unmanned Aircraft Vehicles into the General Air Traffic?**

taken by **Myriam Nouvel** from Radar and Warfare Technical Directorate of Thales Airborne Systems;

➤ **Smart ICT in Ambient Assisted Living Applications to Improve Quality of Life**

taken by **Susanna Spinsante**, Director of the ArieLAB.

You can read other information on **QeB, January 2012**.

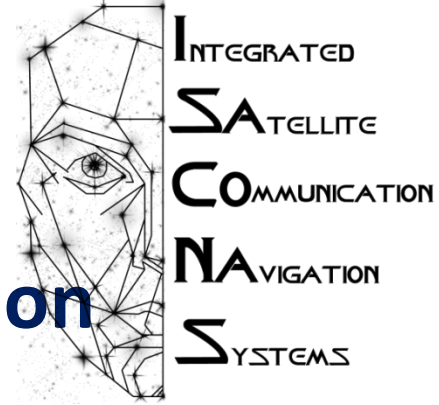


# Proposed Procedure for GOLD for GOLD Candidates

1. **Submit an outline of the proposed topic(s) including documentation of his/her relevant qualifications, such as publications, conference talks, tutorials, and awards. Ideally, provide a copy of proposed presentation slides.**
2. **Provide proof of the relevance and quality of the lecturer which can include: (a) List of invited lectures/tutorials at major IEEE or related forums; (b) Testimonials of the effectiveness of the proposed lecture from appropriately qualified individuals such as conference chairs, AESS chapter chairs, IEEE Senior or Fellow recommendations, etc.”**

**We can insert a call for GOLD for GOLD Lecturers on QeB and on the AESS web site!!!**

**We can insert GOLD for GOLD Lecturers during the AESS Conferences !!!**



# 2013 IEEE AESS Summer Workshop on Integrated Satellite Communication and Navigation Systems (ISaCoNaS):

*“Advanced Services and Applications, Architectures and  
Terminals To improve Quality of Life”*

*in partnership with*



# IEEE AESS Summer School on

## *Integrated Satellite Communication and Navigation Systems*

**(ISaCoNaS)**

**Alassio (Riviera dei Fiori -  
Italy)**

**May 29 – June 1 2013**

***www-isaconas-  
workshop.uniroma2.it***

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INTEGRATED COMMUNICATION SYSTEMS  
I.S.A.CO.NA.S.  
SATELLITE NAVIGATION

“Engineering Enhancing Quality of Life”

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2011 IEEE AESS Workshop on Integrated Satellite Communication and Navigation Systems: Advanced Services and Applications, Architectures and Terminals To Improve Quality of Life will be held in Caselle Marittima, Pignone, Italy, in the end of July 2011. The aim of this workshop is to provide a vision on the role of Integrated Satellite Communication and Navigation [...]

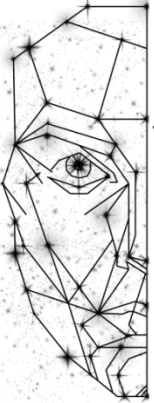
ORGANIZED BY:

AESS  
Advanced Research and Engineering for Space

Scuola IAD  
Istituto Nazionale di Fisica Nucleare

CTIF  
Centro per le Tecnologie

CTIF Italy  
Centro per le Tecnologie



**I**NTEGRATED  
**S**AATELLITE  
**C**OMMUNICATION  
**N**AVIGATION  
**S**YSTEMS

# **Space Science, Technology and Space Tourism to improve Knowledge and Quality of Life**

## **2013 Summer School**

**featuring**

**Workshops on Integrated Satellite Communication and Navigation  
Systems (ISaCoNaS)**

**3rd SpaceLand Expo-Congress**

**Alassio (Riviera dei Fiori - Italy)  
May 29 – June 1 2013**





**SpaceLand Italia, Via Rivalta 9 - 10095 - Grugliasco -  
Torino (Italy)**

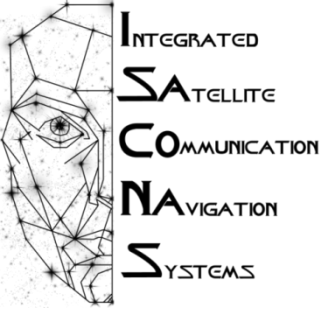
Tel +39 011 234 14 635-684 / Fax. +39 011 09 65 20 74 <sup>4</sup>  
mobile +39 339 37 42 528 or +39 329 067 33 33

Website: [www.SpaceLand.it](http://www.SpaceLand.it) - email:  
[SpaceLand@SpaceLand.it](mailto:SpaceLand@SpaceLand.it)

**SPACELAND Italia SRL was founded in 2006 by Italian and Swiss investors and has been taken over in 2012 by SpaceLand International Ltd, owned by three international holdings.**

**This set-up has been generated to industrialize the SpaceLand program initiated in 2002 by the Cultural Association "C.O.S.M.O. SpaceLand" thanks to grants from the European Space Agency (ESA) in particular for the ".T." study contract (ESA Winter Olympics Technology Transfer) awarded to COSMO SpaceLand to analyze spin-off potential from spaceflight programs.**

**Since 2002, the SpaceLand program has engineered, organized and carried out an average of *one parabolic flight campaign per year*, for both research and educational purposes, starting from synergies with ESA Student Parabolic Flight Campaigns up to operations including the "path-finder" weightless research flight from the NASA Space Shuttle L.F. and educational and R&D flight campaigns from the Florida Space Coast airport.**



**Within the beautiful settings of the Italian “Riviera dei Fiori”, along the seashore of the sandy beaches of Alassio, the ISaCoNaS Summer School jointly with the 3rd SpaceLand Expo-Congress aims at demonstrating how progress in space science and technology innovation, in particular on integrated satellite and navigation systems, can merge with disciplines pertaining to the new segment of “space tourism” to further raise public awareness on the fundamental role of space business in enhancing knowledge, providing social-economical development and improving the quality of life of all citizens.**

**The syllabus, workshops and interactive ground and flight exhibits of the Summer School will be based on both congress lectures and classroom-based events as well as ground and flight technology demonstrations, both in Alassio and in the local airport.**



**The events will focus on *Integrated Satellite Systems, Emerging Technologies and relative Value added Services & Applications as well as on the new interdisciplinary activities to prepare the public to Space Tourism and spaceflight experiences, including ground and underwater space training addressing manned spaceflight for research, education and science-oriented leisure, starting from microgravity and sub-orbital flights open to the public.***

**The ISaCoNaS Summer School and the 3rd SpaceLand Expo-Congress are expected to be particularly appealing to:**

- **Under-graduate and graduate students**
- **Engineering and science university researchers**
- **High Tech SMEs, Engineers and Research professionals from industry and institutions**
- **Investors**
- **Policy-Makers**

# Main topics of the Workshop:

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## Macroarea #1: Communication and Navigation Technologies

- Ground and Space Antenna Technologies and Systems
- Modulation and Coding Schemes
- Synchronization, Equalization and Channel Estimation
- Channel Modeling for Satellite Communications
- Digital Beamforming Techniques
- MIMO Communications for Satellites
- Interference Detection and Mitigation Techniques
- DVB and Broadband Access Technologies
- Delay Tolerant Networking (DTN) over Satellite
- Software Defined Radio Technology
- Advanced Circuits and Devices
- Onboard Switching and Processing Technologies
- Precise Positioning
- Urban Personal & Vehicular Navigation
- Terrestrial Radio- navigation & RF-Positioning
- GNSS

# Main topics of the Workshop:

## Macroarea #2: Integrated Satellite Systems and Emerging Technologies

- Integration between Telecommunication, Navigation and Earth Observation Systems
- IP over Satellite and Heterogeneous Networks
- Emergency Services
- Maritime Communication Technologies
- Infrastructure and Network Management
- Hybrid Satellite & Terrestrial Networking
- Space Exploration and Interplanetary Internet
- Unmanned Aerial Vehicles (UAVs)
- Aeronautical Satellite Communications
- Swarm Sensor Networks

# Main topics of the Workshop:

## Macroarea # 3: Value added Services & Applications for Improving the Quality of Life (QoL)

- Mobile Satellite Services
- Real-time Multimedia Streaming, Broadcast/Multicasting
- Cybersecurity
- Intelligent Transportation Systems
- Homeland Security
- eHealth
- Military and Dual Use Applications
- Disaster Ahead Management
- Environmental Monitoring
- ICT for Energy

# Main topics of the Workshop:

## Macroarea # 4: Future Satellite Communication Systems

- Next Generation Mobile, Broadband and Broadcast Satellite Systems
- Channel Modeling for EHF Satellite Communications
- Millimeter Wave Technology and Devices
- Multi-Gigabit Communications
- New Constellation Design

## Macroarea#5: Space Tourism and generated social-economical development

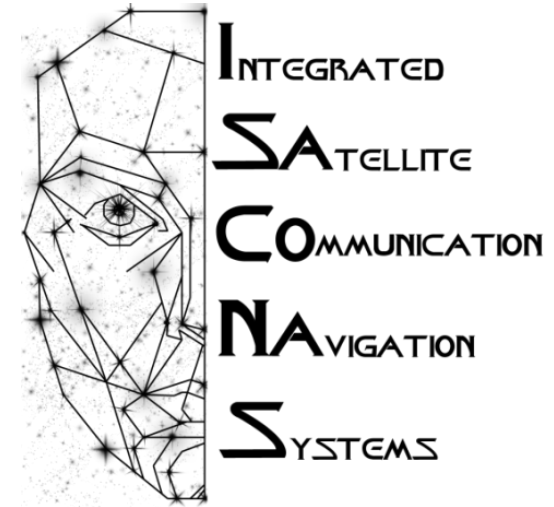
- Parabolic flight opportunities
- Sub-orbital flight opportunities
- Ground and underwater training for the public
- Technology, Material and Life Sciences transfer into everyday life of citizens
- Added-value programs for touristic, sport and cultural development of the territory

# International Advisory Committee:

- Marina Ruggieri (IEEE AESS Junior Past President)
- Ernesto Limiti (ARES Consortium President)
- Mark E. Davis (IEEE AESS VP Conference)
- Judy Scharmann (IEEE AESS Executive Assistant) ???
- Aurelio Simone (Scuola IaD – University of Rome, Tor Vergata)
- Sabino Cacucci (SSI Commercial Director)

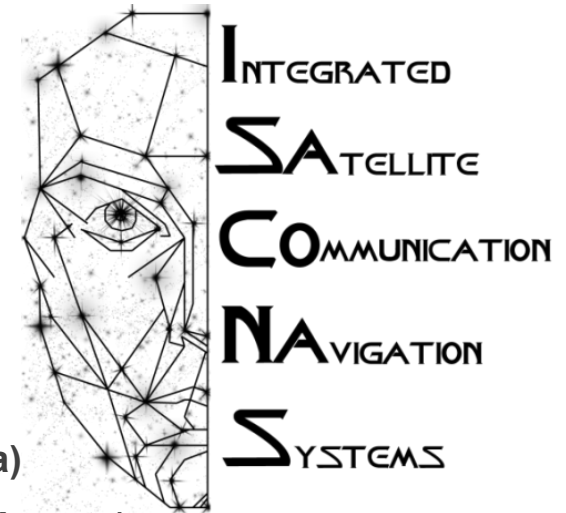
## Technical Committee:

- Marina Ruggieri (University of Tor Vergata)
- Ernesto Limiti (ARES Consortium President)
- Reza Dizaji (IEEE AESS BoG) ???
- Iram Weinstein (IEEE AESS BoG, VP Education) ???
- Theodora Saunders (IEEE AESS BoG, VP Technical Operations) ???
- Ernestina Cianca (University of Rome Tor Vergata)
- Claudio Sacchi (University of Trento)
- Mauro De Sanctis (University of Rome Tor Vergata)
- Tommaso Rossi (University of Rome Tor Vergata)
- Cosimo Stallo (University of Tor Vergata)
- Francesco Fedi (SSI)



# Organizing Local Committee:

- Antonio Salomé (ARES Consortium Director)
- Emanuela Congedo (SpaceLand Strategy Manager)
- Aldo L'Imperio (Pentastudio s.r.l. – Eutelsat External Relations)
- Simona Ranieri (University of Rome Tor Vergata)
- Judy Scharmann (IEEE AESS Executive Assistant)
- Stefano Mandorino (S. T. A. I.)
- Danilo Arduini (IEEE AESS Student Chapter of Rome Tor Vergata)
- Emanuele Buonomo (IEEE AESS Student Chapter of Rome Tor Vergata)
- Loris Marini (Chair of IEEE AESS Student Chapter of Rome Tor Vergata)



# Potential Speakers (to be confirmed)

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**Prof. Enrico Del Re (University of Florence)**  
*Cognitive radio and integrated Nav-Com devices*

**Prof. Kai Borre (Aalborg University)**  
*SDR receivers for satellite navigation*

**Prof. Franco Vespe (Italian Space Agency)**  
*Geodesya*

**Prof. Laurent Castanet (ONERA Toulouse)**  
*Propagation and ACM techniques at Q/V bands*

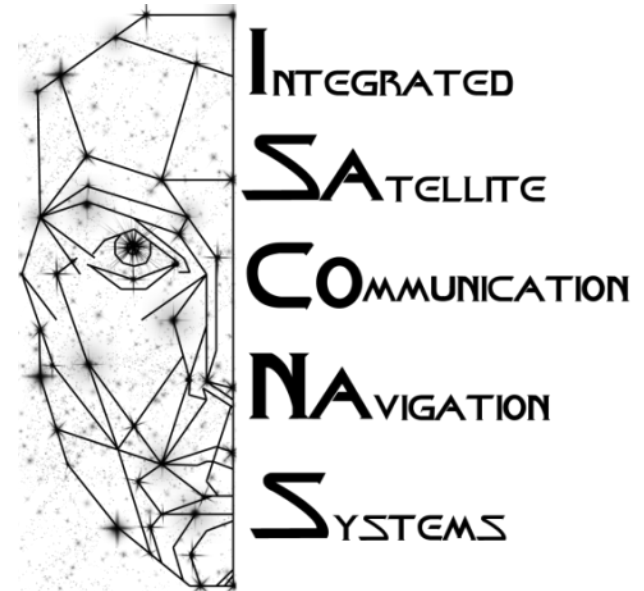
**Prof. Lo Presti (Politecnico di Torino)**  
*NavCom devices*

**Prof. Marchese (University of Genova)**  
*Delay tolerant Networks*

**Prof. Ernesto Limiti, University of Tor Vergata**  
*Electronic Devices at Millimeter Waves*

**Prof. Michele Luglio, University of Tor Vergata**  
*Advanced Satellite Communications*

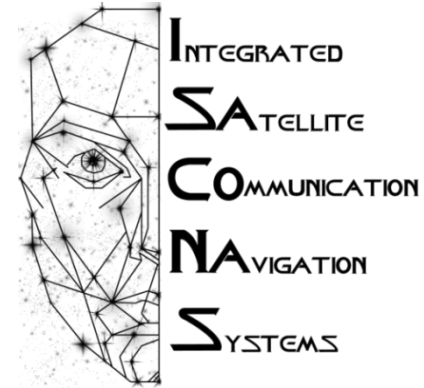
**Dr. Sandro Scalise, DLR**  
*Head of "Digital Networks" Department at DLR (German Aerospace Center)*





# Invited Speakers from AESS BoG???

**You are kindly invited!!!!**



**We can insert GOLD for GOLD Lectures  
within ISACONS !!!!**

# IEEE AESS Registration Fees (to be confirmed)

IEEE AESS Member: € 370

IEEE AESS Non Member: € 400

IEEE AESS Student Member: € 250

IEEE AESS Non Student Member: € 300

IEEE AESS Life Member: € 110

Special Registration: € 300

Fee includes participation to the summer workshop, proceedings, coffee breaks and meals).

**IEEE AESS Grant: 10000 USD????**