

## Submission, Proceedings, Presentation

The papers will be accepted on the basis of a peer review process of a **substantial abstract** (two or three pages including the following: title, authors and affiliation, short - 30 to 50 words - abstract, a 700 to 1200 words text, significant original results shown in one or two drawings or tables, and finally the main references).

Procedures to submit a paper can be found at <http://radarlab.disp.uniroma2.it/esav.htm>.

The final version of papers must be camera-ready, no more than six pages long all inclusive and conforming to the format specified in the ESAV® web-site <http://radarlab.disp.uniroma2.it/esav.htm>.

The papers will be published in the TIWDC/ESAV'08 CD-ROM and a printed booklet will be provided at the Workshop site with - for each paper - title, authors and affiliation, short abstract.

Oral presentations (20'+5' for Q&A) in a single room (*parallel sessions are not planned*) and, depending on the submission acceptance results, a poster session preceded by 5' flash presentations (aim, results) from the podium will be planned.

## General Information

Potential authors/attendees are kindly invited to fill a preliminary form on the Web site:

<http://radarlab.disp.uniroma2.it/esav.htm>

## Workshop Site

Hotel La Palma \*\*\*\* Capri

<http://www.lapalma-capri.com/>

**Travel info:** <http://www.capri.com/en/index>  
<http://www.capritourism.com/en/home>

The Trenitalia (<http://www.ferroviedellostato.it/>) national railway network links all the major Italian cities with Naples.

## IMPORTANT DATES

- Submission of abstracts  
~~31 January 2008~~  
**7 February 2008**
- Notification of acceptance  
**7 April 2008**
- Early registration and hotel reservation at reduced price  
**15 May 2008**
- Submission of camera-ready papers  
**30 May 2008**
- Request for VISA application letter  
**15 June 2008**
- Event in Capri  
**3 to 5 September 2008**



## TIWDC/ESAV'08



### Organised by



National Inter-University Consortium  
for Telecommunications of Italy



### In cooperation with



UNIVERSITÀ degli STUDI di ROMA  
TOR VERGATA



SP and AES Chapter,  
Italy Section



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## Introduction

The need for increasing safety and efficiency levels in the air transport system requires modern control and traffic management (ATM) systems for aircraft in air and in ground operations, as well as for service vehicles on the airport surface. The related Communications, Navigation and Surveillance (CNS) infrastructures call for enhanced positioning and identification techniques such as Multilateration (MLAT) and Wide Area MLAT (WAM), automatic dependent surveillance (ADS-B), automatic vehicles location and management (AVMS). These enhanced surveillance means are spatially distributed (i.e. with many receiving or transmitting/receiving stations) and logically distributed (i.e. with local and central processing and with fusion of different information sources, including the traditional primary and secondary radar). In this frame, new system architectures and new algorithms for integrity monitoring and for multi-sensor data fusion are required.

Security and defence systems use similar algorithms for the passive location of targets based on measurements of Time of Arrival (TOA) and its differences (TDOA) as well as of Doppler frequency and its differences (FDOA), possibly combined with angular/direction measurements (AOA/DOA).

Today, the location and surveillance means are more and more relevant also in the frame of the emerging "dual use" of surveillance and identification systems and of the commonalities of location algorithms in the different applications.

Therefore, the National Inter-University Consortium for Telecommunications of Italy (CNIT) has decided that his 2008 Tyrrhenian International Workshop on Digital Communications (Capri, 3-5 September 2008) will be devoted to the ESAV® (Enhanced Surveillance of Aircraft and Vehicles) area, with the name TIWDC/ESAV'08.

*Gaspare Galati*

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## Main Topics

In the overall frame of the enhanced, modern surveillance systems for the airport surface (aircraft, vehicles) and for the control of the airspace, the workshop topics include, but are not limited to:

- **User Requirements, Standards, Certification**
- **Dual-use applications (safety and airport security)**
- **Systems and Subsystems: Architectures, New concepts**
- **Passive location based on time, Doppler, angle Measurements**
- **Assimilation of weather data**
- **Sensor data fusion**
- **Fusion of data from multiple sources**
- **Technologies (hardware, firmware, software)**
- **Environmental aspects (including radio propagation)**
- **Testing and Field Analysis, Integrity Monitoring**
- **Implementation plans and Operational results**

