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SEMINAR:

The Impulsive SAR (ImpSAR)

Speaker: Prof. Giorgio Franceschetti

(University of Trento, Italy)

Date: 13 May 2013 @ 3:30 PM

Location: Room A102 – Polo Scientifico F. Ferrari - Povo

Note: The seminar will be held in English

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The Impulsive Synthetic Aperture Radar is a novel modification of the conventional Synthetic Aperture Radar (SAR): its elements radiate carrier-less instead of chirped pulses, and processing is implemented in time- instead of frequency-domain. Due to power requirements, it can be implemented over manned or unmanned airplanes, and over the ground. After a brief recap of SAR operations, the seminar presents the full theory of the ImpSAR, in particular its real-time processing features. Open problems related to both actual limitations and possible improvements are also discussed.

• **About the Speaker**

Giorgio Franceschetti is Honorary Professor "Bruno Kessler" of the University of Trento. He is Professor at the University Federico II of Napoli (Italy), Distinguished Visiting Scientist at Jet Propulsion Laboratory (USA), lecturer at Top-Tech Master of Delft University (The Netherland).

He has been Fulbright Scholar and Research Associate at Caltech, Adjunct Professor at University of California Los Angeles (USA) for 16 years, Visiting Professor at the University of Illinois and UCLA, at the Somali University (Somalia), at the University of Santiago de Compostela (Spain). He is Life Fellow of IEEE and Member of the Electromagnetic Academy. He is author of over 180 (peer reviewed) papers on Journals of recognized standard and ten books, and recipient of several awards, culminated with the gold medal from the President of the Italian Republic for his achievements in culture and science (2000), and elevation to the grade of Officer of the Italian Republic (2001). His most recent recognitions are the prestigious 2007 IEEE GRS-S Distinguished Achievement Award: For outstanding research in Electromagnetics, Propagation, Remote Sensing and Information Data Processing, that correctly describes his scientific research interests; and the 2008 Schelkunoff Prize (IEEE, AP-Society), for the best paper published on the Transactions, assigned to him for the second time.