



University of Pavia

Ph.D. School in Electronics, Computer Science  
and Electrical Engineering

Ph.D. School of Microelectronics

## SEMINAR ANNOUNCEMENT

# Design of enhanced planar devices using multiconductor transmission lines with interconnected alternate lines

***Prof. Enrique Márquez Segura***

Universidad de Málaga, Malaga, Spain

**Wednesday, April 13, 2016, 11:00**

Aula Seminari ex Dipartimento di Elettronica (floor D)

**Abstract** – Novel capabilities and applications of multiconductor transmission lines with interconnected alternate lines will be presented. The interconnections among alternate strips broaden the operating frequency band by eliminating undesired resonances and allow the use of simplified analytical models. Phase shifters, baluns, reconfigurable systems for the characterization of balanced circuits, ultra-wideband differential bandpass filters and quasi-elliptic bandpass filters have been proposed and will be shown. For all these circuits a systematic design procedure have been derived and validated by means of experimental work. The excellent agreement between the measurements and the predicted results validates the proposed procedures as reliable and quick design techniques.

**Biography** – Enrique Márquez received the Ingeniero de Telecomunicación and Doctor Ingeniero degrees from the Universidad de Málaga, Málaga, Spain, in 1993 and 1998, respectively. In 1994, he joined the Departamento de Ingeniería de Comunicaciones, Escuela Técnica Superior de Ingeniería (ETSI) de Telecomunicación, Universidad de Málaga, where, in 2001, he became an Associate Professor.

His current research interests include electromagnetic material characterization, measurement techniques, and RF and microwave circuits design for communication applications. Dr. Márquez-Segura was the recipient of a Spanish Ministry of Education and Science Scholarship (1994–1995)

### **Organizer**

Prof. Luca Perregrini

### **Ph.D. Coordinators**

Proff. P. Di Barba, F. Maloberti

The seminar will be held in English

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