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DI PAVIA

## Ph.D. Program in Electronics, Computer Science and Electrical Engineering

### Seminar series **THz Communications**

***Dr. Josep M. Jornet***

**Ass. Prof. @ Northeastern University, Boston (MA)**

Room H1	16:00-18:00 May 20	THz communications: motivation and applications
Room E8	14:00-16:00 May 22	THz transceiver technologies
Room E8	11:00-13:00 May 23	THz antennas, arrays and reflect-arrays
Room H1	14:00-16:00 May 24	THz propagation and channel modeling
Room H1	16:00-18:00 May 27	Ultra-broadband Modulations
Room E8	14:00-16:00 May 29	Multi-user interference at THz frequencies
Room E8	11:00-13:00 May 30	Physical layer security in the THz band
Room H1	14:00-16:00 May 31	Simulation, emulation, and experimental platforms for THz networks

### **Abstract**

The Terahertz (THz) band (100 GHz to 10 THz) is seen as a key technology to be used in the near future. Within this short course, an overview of the state of the art of transceivers in the THz band will first be presented, outlining the possible architectures of transmitters and receivers, with focus on modems, antennas, antenna array, and digital electronics.

### **Biography**

Josep Miquel Jornet is an Associate Professor in the Department of Electrical and Computer Engineering, the director of the Ultrabroadband Nanonetworking (UN) Laboratory, and a member of the Institute for the Wireless Internet of Things at Northeastern University. He received the Degree in Telecommunication Engineering and the Master of Science in Information and Communication Technologies from Barcelona School of Telecommunications Engineering (ETSETB), Universitat Politècnica de Catalunya, Spain, in 2008. From September 2007 to December 2008, he was a visiting researcher at the Massachusetts Institute of Technology, Cambridge, under the MIT Sea Grant program. He received the Ph.D. degree in Electrical and Computer Engineering from the Georgia Institute of Technology, Atlanta, GA, in August 2013. Between August 2013 and August 2019, he was in the Department of Electrical Engineering at the University at Buffalo, The State University of New York.

### **Organizer**

Prof. Paolo Gamba

### **Ph.D. Coordinator**

Prof. I. Cristiani

Seminar in English

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