



**University of Pavia**  
**Ph.D. School in Electronics, Computer Science and Electrical Engineering**  
**Ph.D. School in Microelectronics**

## **SEMINAR**

### **Key Technologies and Design of Transport Optical Networks**

***Emilio Riccardi***  
**FIBERCOP**

3/6/2025, h 11:00  
Aula Seminari Magenta,  
Dipartimento di Ingegneria Industriale e dell'Informazione,  
Facoltà di Ingegneria

This presentation offers a survey of the key technologies such as wavelength switching, phase modulation, coherent detection, and an introduction to the Gaussian Noise model extensively used in coherent transmission system design. A survey of the new FiberCop transport network is also given as an example of the benefits of these technologies applied to photonic metro-regional and backbone networks.

Bio: Emilio Riccardi graduated in physics at University of Torino (Italy) in 1991 and since 1992 he has been working in the context of fiber optic transmission, initially in CSELT, then in Telecom Italia. With the birth of FiberCop in 2024, he is working as a senior researcher in the Innovation & Engineering department. He currently is involved in the design and innovation of DWDM optical networks. He is actively participating in several research projects funded by the EU, and is now involved in the SEASON project. He has co-authored several journal and conference publications.

#### **Organizers**

Prof. Valerio Annovazzi Lodi  
Prof. Ilaria Cristiani

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

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