



UNIVERSITÀ  
DI PAVIA

**Ph.D. Seminar in Electronics, Computer Science and Electrical Engineering and  
Biomedical Engineering**

## **SEMINAR**

### **Silent Substitution and Pupil Light Response: Measurement Techniques for Investigating Human Photoreceptor Function**

***Prof. Luigi Rovati, PhD***

**Full Professor**

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**March 24<sup>th</sup> 2026, 10:00 – Aula Seminari Magenta**

**Abstract:** This lecture presents the silent substitution technique for selectively stimulating retinal photoreceptors without perceptual changes. After introducing photoreceptor spectral sensitivities and metamerism, the pupil light response is discussed as a non-invasive measurement method. Instrumentation examples and experimental results illustrate applications in human vision science and photoreceptor functional assessment.

**Bio:** **Luigi Rovati** is Full Professor at the University of Modena and Reggio Emilia, Italy. His research focuses on optical measurement systems, sensor design, and data analysis for biomedical and industrial applications, integrating instrumentation, signal processing.

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