



**Seminars Series**  
**Talks on Electronics – 2025**

a cycle of seminars on Electronics, Integrated Circuits, Radio-Frequency and related topics

**Wednesday November 26<sup>th</sup>, 2025**

**14:30 – 16:30**

**Aula 11 - Triennio**

**Songs of Ice and Power: research, challenges, and  
opportunities on cryo-noise sources and EVM  
measurements**

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**Abstract** – Can your electronics withstand extreme cold? In this talk, I discuss the current state of the art and recent developments on the research about integrated noise sources for near-absolute-zero conditions. I illustrate my work and experiments conducted at the Electronic Circuits and Architectures (ELCA) group at TU Delft with the collaboration of Prof. Alimenti from the University of Perugia. Moreover, I outline my other research at TU Delft, including EVM measurements of VNA for wideband systems, and at PicoSats SRL on inter-satellite communication.



**Guendalina Simoncini** received her PhD (cum laude) in 2023 at University of Perugia (Italy). Her thesis, "Silicon Integrated Noise Built-In Test Equipments for 5G and 6G Radios" earned the honorable mention as one of the best three PhD thesis in Electronic Engineering by the "Italian Society of Electronics" (SIE). Since 2025, she is at TU Delft as post-doc in the department of Microelectronics. Her research interests include integrated noise sources, telecommunication systems for satellite, and cryogenic noise measurements.