



Joint SNS Workshop **TIMES, 6G-SHINE, TERRAMETA,**
in synergy with **RESTART-IN**

1st February 2024

WiLab Laboratory, Via Paolo Nanni Costa 20, 40133, Bologna

Agenda

9.00 – 9.10 **Welcome**

9.10 – 10.40 **Project presentations**

1. L. Sanguinetti, "Introduction of TIMES"
2. G. Berardinelli, "Introduction of 6G-SHINE"
3. L. Pessoa, "Introduction of TERRAMETA"
4. G. Cuozzo "Introduction of RESTART-IN"

10.40 – 11.10 **Coffee Break**

11.10 – 12.50 **Smart Propagation Environments** [*Presentation 20 min + Q&A 5 min*]

1. E. M. Vitucci (6G-SHINE) "Macroscopic propagation modelling for RIS-aided communications"
2. J. Vázquez Peralvo (TERRAMETA) "Scalability Analysis of RIS in Terahertz"
3. B. K. Jung (TERRAMETA) "RIS Application on THz X-haul Links from Simulation to Measurement"
4. A. Abrardo (6G SHINE) "Design of Reconfigurable Intelligent Surfaces by Using S-Parameter Multiport Network Theory- Optimization and Full-Wave Validation"

12.50 – 14.00 **Lunch**



14.00 – 15.40 **Signal Processing Enhancements towards 6G** [*Presentation 20 min + Q&A 5 min*]

1. A. Clemente (TERRAMETA) "Advanced transceiver-antenna co-integration techniques at mmWave and sub-THz: recent achievements and future challenges"
2. L. Antonelli (TIMES) "MIMO Systems at Terahertz Bands: Design and Analysis"
3. D. Dardari (6G-SHINE) "High-frequency MIMO Communications using Self-Conjugating Metasurfaces"
4. G. Cuzzo (RESTART-IN) "Characterization of Orthogonal Chirp Division Multiplexing and performance evaluation at THz frequencies in the presence of phase noise"

15.40 – 16.15 **Coffee Break**

16.15 – 17.30 **6G-Oriented Networking and Localisation** [*Presentation 20 min + Q&A 5 min*]

1. S. Riolo (RESTART-IN) "RL-based MAC protocol learning"
2. L. De Nardis (RESTART-IN) "Positioning by fingerprinting in 3GPP networks"
3. A. Giorgetti (TIMES) "Recent Advances Towards Ubiquitous Joint Sensing and Communication"