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Special Session on
RISs for Communication and Sensing

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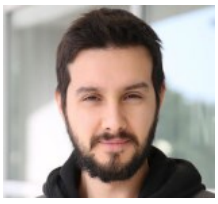
Luís Pessoa received his Ph.D. in Electrical and Computer Engineering from the Faculty of Engineering, University of Porto, in 2011. He is a Senior Researcher at INESC TEC, where he is the Lead of the area of Optical and Electronic Technologies. His research interests include coherent optical systems, radio-over-fiber, and RF/microwave devices and antennas.



Nuno Paulino received a Ph.D. in Electrical and Computer Engineering from the University of Porto (FEUP) in 2015. He is a professor at FEUP and researcher at INESC TEC. Research interests include embedded systems and SDR applications in FPGAs.

Dr Qi Luo is a Senior Lecturer at UH, in the UK. He is an IEEE senior member, he is associated editor for IEEE Access, is a reviewer for, and has published more than 100 articles in, high-impact journals and international conferences. Research interests are smart antennas, phased arrays, antennas for mobile communications, metasurfaces, microwave components and RF circuits.

Sérgio Matos is an Assistant Professor at ISCTE, and a researcher at IT Lisboa. He is a consultant for EurAPP, and a member of the EuCAP Steering Committee. He has strong expertise in design and measurement of millimeter wave antennas, specifically reflect-arrays and radiation in meta-materials.

Scope of the session

Reconfigurable Intelligent surfaces (aka. metasurfaces), based on planar antenna arrays, are an old concept experiencing a revival. Technological advancements allowing for large arrays tuned for high frequencies, and on edge platforms to implement their real-time digital control makes these devices more viable than ever. More importantly, RISs are promising candidates to fulfill the envisioned capabilities of 5G and 6G networks for smart-radios, capable of integrating efficient communications, sensing, and network adaptability based on fast changing requirements. Not only can these devices be the key to meeting these requirements, but they will likely allow for entirely new RF based applications.
This special session calls for contributions on the use Reconfigurable Intelligent Surfaces for Communications, Localization, and Sensing.

Prospective authors are invited to submit original and unpublished work on the following research topics related to this Special Session:

- *Antenna Design from Microwave to Sub-Thz*
- *Antenna Measurement*
- *Joint/Integrated Communications and Sensing*
- *Vision-Aided Communications*
- *Near-Field Communications*
- *Metasurface Design*
- *Reconfigurable Technology*
- *Directional Communications on Reconfigurable Systems*