



Istituto di Elettronica
e di Ingegneria
dell'Informazione e
delle Telecomunicazioni

Thursday seminars

*Taking a Look at the Future:
a cocktail hour event!*



Prof. Luca Sanguinetti
(Università di Pisa)

MIMO Technology for 5G and Beyond

Over the past decade, Massive MIMO has gone from being a wild multi-antenna concept for improving the data rates in future cellular networks to mainstream technology. Massive MIMO is a core technology in 5G or, at least, this is what operators and manufacturers are claiming. But how close to the theoretical predictions will the 5G Massive MIMO technology actually perform? In this talk, we will first answer this question and thereby reveal the main weaknesses of the MIMO technology in 5G. We will then take a look at potential technology evolutions that might address these weaknesses in beyond 5G networks. Among the different technologies, a promising one is represented by Cell-free Massive MIMO. The talk will identify the fundamental limits that call for a shift towards the cell-free paradigm, and will explain the benefits of the user-centric cell-free operation compared to conventional cellular operation.

[Registration form](#)

Teams Webinar

October 14th, 2021 – 17:30

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