Channel Estimation with Extremely Large-scale Antenna Arrays (ELAA) for 6G.

Rafik Guellil*[1]

[1]PRISME – Université d'Orléans, Université d'Orléans : EA4229 – France

Résumé

The number of connected objects using mobile phone networks is tremendously rising, showing early the limits of the 5G technology to satisfy this need for connectivity. That's why the 6G has already being conceived to offer about a hundred times more data rates and much better coverage compared to the 5G. Besides using mmWaves and THz, ELAA (Extremely Large-scale Antenna Arrays) are expected to be used for the 6G to exploit the distance information offered by the spherical waves of the near-field region of hundreds of meters to perform both localization and communication tasks, which call for accurate channel estimation methods. Our work is about developing accurate channel estimation methods with a computational load/cost as low as possible.

*Intervenant