

Title

Favourable Propagation for 5G: When is it Wishful Thinking or Practical Reality?

Abstract

Massive MIMO is currently under intensive research for 5th Generation wireless networks because it has promise for greatly increased user capacity and improved quality of experience, or QOE. However, the concepts and promise of massive MIMO rest crucially on the phenomenon of favourable propagation. In this talk, we examine favourable propagation, and report recent results that characterize precisely when favourable propagation can or cannot be achieved in practical MIMO implementations. Conditions and tests that guarantee whether specific practical channels offer the opportunity for favourable propagation are found and proved.