

Dense Small Cell Networks From Noise-Limited to Dense Interference-Limited

ABSTRACT

- We propose a unified framework analyzing the future 5G wireless networks over generalized shadowing/fading channels, in which the user association schemes based on the strongest instantaneous received power and the strongest average received power can be studied, while NLoS / LoS transmissions and multi-slop path loss model are considered.
- Simulation results indicate that different factors, noise, desired signal, and interference, successively and separately dominate the network performance with the increase of BS density.

EXISTING SYSTEM

- Considering both non-line-of-sight and line-of-sight transmissions, the transitional behaviours from noise-limited regime to dense interference-limited regime have been investigated for the fifth generation small cell networks.
- Besides, we identify four performance regimes based on base station density, the noise-limited regime, the signal-dominated regime, the interference-dominated regime, and the interference-limited regime.

PROPOSED SYSTEM

- In this paper, we illustrated the transition behaviors in SCNs incorporating both NLoS and LoS transmissions.
- Based on our analysis, the network can be divided into four regimes, NLR, the SDR, the IDR and the ILR, where in each regime the performance is dominated by different factors.
- The analysis helps to understand as the BS density grows continually, which dominant factor that determines the cellular network performance.

HARDWARE REQUIREMENTS

- Processor - Intel core i3
- RAM - 2B
- Hard Disk - 20 GB

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SOFTWARE REQUIREMENTS

- Operating System : LINUX
- Tool : Network Simulator-2
- Front End : OTCL (Object Oriented Tool Command Language)

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