

**Interference Management in
Ultra-Dense Networks A User
Centric Coalition Formation
Game Approach**

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ABSTRACT

- Different from most prior studies that centre on femtocell access points and neglect the influence of users' location when allocating sub channels, a centralized user-centric merge-and-split rules based coalition formation game, which can be well supported in the framework of the cloud/centralized radio access network, is proposed.
- This user-centric game makes it possible to utilize user information in estimating inter-user interference so that the interference mitigation can be more accurate and effective.

EXISTING SYSTEM

- Ultra-dense networks have been identified as a promising technology to accomplish objectives of the fifth generation wireless networks.
- However, the severe mutual interference generated by the densely deployed femtocells constitutes a great challenge.

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PROPOSED SYSTEM

- Besides, a novel resource allocation algorithm based on graph theory is presented.
- It can eliminate intra-tier interference efficiently by allocating users.
- Furthermore, in order to overcome the limitation that “only one sub channel can be allocated to each user” in previous coalitional games, a supplementary allocation algorithm is put forward to allocate remainder sub channels such that the system spectral efficiency can be improved.

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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REFERENCE

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