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# Cluster communication channels of different base stations

What is multi base station cooperation?

Multiple base stations (BSs) cooperation, which can be called multi-cell cooperation, network MIMO, coordinated multi-point (CoMP) in wireless communication system, has been extensively studied [1 - 4].

What is a dynamic clustering algorithm based on Channel norm?

In addition, a novel dynamic clustering algorithm based on channel norm is presented. By calculating the mutual interference matrix according to channel norm, for each clustering judgment, the BS which has the biggest element in the present interference matrix is selected as the leader BS.

What is a "cluster" service strategy?

In this context, relying on a uniform service strategy limits the network's ability to adapt and scale to these diverse needs. To overcome these challenges, China Telecom and ZTE introduced the "Cluster" concept. This approach groups base stations with similar service characteristics and requirements into clusters.

What are the different types of clustering methods?

The common used methods include static clustering and dynamic clustering. The works on the dynamic clustering of BSs mainly focus on the system capacity, while the complexity of the well-known dynamic clustering algorithm is high. Most energy efficiency (EE) solutions are based on static clustering [6, 10] or single cell [11, 12].

The location and planning of base stations, which are related to the quality of communication services and the construction cost of base stations, are highlights of ...

Abstract With the increasing amounts of terminal equipment with higher requirements of communication quality in the emerging fifth generation mobile communication network (5G), ...

Multiple base stations (BSs) cooperation can effectively reduce the inter-cell interference and especially improve the performance of the cell-edge users, which has been ...

Driven by the intelligent applications of sixth-generation (6G) mobile communication systems such as smart city and autonomous driving, which connect the ...

Background and Definitions Base stations are used in many different communication standards and can be installed by public authorities, network providers, ...

In the world of wireless communication, the choice of channels for base stations plays a critical role in ensuring reliable service, minimizing interference, and optimizing ...

8. Cellular concept replaces many low power transmitters to a single high power transmitter. (a) True (b) False 9. Why neighboring stations are assigned different group of ...

With the increasing amounts of terminal equipment with higher requirements of communication quality in the emerging fifth generation mobile communication network (5G), ...

Each cellular base station is allocated a group of radio channels within a small geographic area called a cell. Neighboring cells are assigned different channel groups. By ...

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The outcome of the aforementioned scheme selection procedure is ensured, in part, by the quality characteristics of the wireless communication channel used to implement the ...

1 Introduction Multiple base stations (BSs) cooperation, which can be called multi-cell cooperation, network MIMO, coordinated multi-point (CoMP) in wireless communication ...

We developed a mixed integer programming model to provide the optimal location of base stations at different time periods with the network's minimum total cost (i.e., installation ...

Initially developed to address the demands of low-altitude communication, Cluster DRS provides deterministic communication services for drones by ensuring reliable 5G ...

Realistic channel modeling is the prerequisite for the design and deployment of ISAC systems [10], [11]. Communication and sensing channels are intrinsically different ...

A clustered base transceiver station (BTS) coordination strategy is proposed for a large cellular MIMO network, which includes full intra-cluster coordination-to enhance the sum ...

Abstract Integrated Sensing And Communication (ISAC) has been recognized as a promising technology in the 6G communication. A realistic channel model is a prerequisite for ...

The mobile unit in cluster 2 is receiving the same frequency from two different base stations. Although the mobile unit is under the control of the base station in cluster 2, the ...

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