Three-dimensional communication wireless base station

What is a 3D continuous-space radio channel?
The underlying channels show an evolutionary trend to 3D continuous-space radio channels that combine antennas and wireless propagation channels,in comparison to discrete local-space wireless propagation channels in previous generations.

What are the research thrusts of 3D continuous space radio channels?
Then, an in-depth investigation on the four major research thrusts of 3D continuous-space radio channels is provided: 1) channel measurements and modeling, 2) channel capacity analysis, 3) general antenna design, and 4) wireless system design.

Does EIT support 3D continuous-space radio channels in 6g/b6g?
To address these challenges, this paper performs a comprehensive study on 3D continuous-space radio channels in 6G/B6G with the aid of electromagnetic information theory (EIT) that integrates electromagnetic theory, information theory, wireless propagation channel modeling theory, and antenna theory.

Most existing indoor localization methods build their models in 2-dimensional space and try to avoid the in uence of multipath. We propose a method to fl realize 3-dimensional ...

Channel theory is a fundamental theory of wireless communications. The sixth generation (6G) and beyond 6G (B6G) wireless communication networks are expected to ...

Reconfigurable intelligent surfaces (RISs) have recently emerged as a promising solution to enhance wireless communication systems by dynamically controlling the ...

Compared to GPS and other commercial satellite positioning system, WCBS-based indoor 3D target positioning system has the following characteristics: 1) The target area ...

Severe multipath and coherence effects are the difference between signal propagation indoors and outdoors. Most existing indoor localization methods build their models ...

Abstract: Base station location selection and network optimization are critical to improving the performance of wireless communication networks in terms of latency reduction. ...

It is concluded that Chan-Taylor three dimensional positioning algorithm has high positioning accuracy and can be used to achieve three-dimensional location of mobile phone.

We have studied Chan-Taylor two-dimensional positioning algorithm and propose an innovative Chan-Taylor three-dimensional positioning algorithm. And we apply it to the indoor ...

Modified Least Squares Algorithm for Three-Dimensional Target Location based on Wireless Communication Base Stations Zhaohui Zhang, Jing Li*, Qian Liu

Abstract: Aiming at the problem that the indoor three-dimensional positioning algorithm is complex and the accuracy is not high, this paper proposes a three-dimensional ...

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