



On the Achievability of Interference Alignment for Three-Cell Constant Cellular Interfering Networks

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For a three-cell constant cellular interfering network, a new property of alignment is identified, i.e., interference alignment (IA) solution obtained in a user-cooperation scenario can also be applied in a non-cooperation environment. By using this property, an algorithm is proposed by jointly designing transmit and receive beamforming matrices. Analysis and numerical results show that more degree of freedom (DoF) can be achieved compared with conventional schemes in most cases.

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