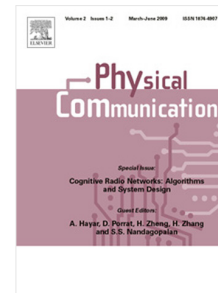


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Subcarrier Allocation Based Simultaneous Wireless Information and Power Transfer Algorithm in 5G Cooperative OFDM Communication Systems

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Abstract

Self-sustainable communications are highly vital for large amounts of mobile terminals in the Fifth Generation (5G) communication systems. Simultaneous Wireless Information and Power Transfer (SWIPT) makes it possible that terminal transfers information while prolonging battery life by harvesting Radio Frequency (RF) energy. Though the traditional sub-carrier allocation based SWIPT algorithm in OFDM communication systems can optimize resource allocation, the receiver often cannot achieve higher information decoding rate when the channel condition of direct transmission deteriorates. In view of this situation, a sub-carrier allocation based

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