Abstract

The broadcasting nature of wireless networks provides an inherent advantage of utilizing the broadcast gain. To improve the efficiency of the network gain associated with multiuser diversity should be optimally exploited simultaneously keeping in mind the problems of wireless networks. One of the most notable problems which we have focused in this paper is the degradation of Signal-to-Noise Ratio (SNR). This paper proposes a quasi-dynamic scheduling algorithm ensuring the maintenance of a good SNR in all transmissions following the first transmission and then opportunistically selects a receiver of each transmission as the transmitter for the following transmission. Following this algorithm we have attained a throughput comparable to dynamic-optimal multicast algorithm at a lower message complexity.

References


Index Terms

Computer Science Wireless Communications

Keywords

Rayleigh Distribution Curve Channel Fading Signal-to-noise Ratio multiuser Diversity Gain Optimal Throughput