RATE−OPTIMAL MULTIUSER SCHEDULING WITH REDUCED FEEDBACK LOAD AND ANALYSIS OF DELAY EFFECTS (ThuPmOR3)

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Abstract :

In this paper we propose a multiuser scheduling algorithm that has the maximum average system spectral efficiency, but obtains a significant reduction in feedback load compared to full feedback by using a feedback threshold. An expression for the threshold value that minimizes the feedback load is found. Novel closed−form expressions are also found for the system spectral efficiency when using M−ary quadrature amplitude modulation. Finally, we analyze the impact of scheduling delay and outdated channel estimates.

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