A New Linear Hybrid Multiuser Detector For CDMA Systems

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Summary

A new linear hybrid multiuser detection scheme is proposed. The structure cascades a linear successive interference cancellation detector and a linear parallel interference cancellation detector in order to extract the advantages of both. The convergence behavior of the hybrid scheme is investigated and moreover, the condition of convergence is determined. The proposed multiuser detector is compared to the other multiuser detectors in terms of complexity, delay, and other factors. Simulation results illustrate the superiority of the proposed.