Abstract

Multiple input multiple output (MIMO) system using multiple transmit and receive antennas are widely recognized as the vital breakthrough that will allow future wireless systems to achieve higher data rates and also to increase diversity to combat channel fading. Therefore, a MIMO system can provide capacity gain and diversity gain. In this paper, we investigate the channel
capacity issue of the Vertical-Bell Laboratories Layered Space-Time (V-BLAST) multiple-input multiple-output (MIMO) system with minimum min square error (MMSE) receiver and zero-forcing (ZF) receivers in fading channel condition. In this paper, the difference in capacity of MIMO system with the MMSE receiver and ZF receiver is validated by comparing the mathematical relation and the simulated results.

Reference


Index Terms

Computer Science
Communications
Key words

MIMO

MMSE

ZF

Capacity

Rician factor