Abstract

Space-time trellis codes provide both diversity gain and coding gain. There are two different design criteria proposed for space-time trellis codes (STTCs), namely the rank and determinant criteria (RDC) and the Euclidean distance design criteria (EDC). In this paper, we present the performance of STTCs over Nakagami fading channels. Our results show that the STTCs designed for Rayleigh fading channels & Recian fading channels are also suitable for Nakagami fading channels. Nakagami fading channel models are considered more versatile than other channel models. In Gong et al. presented the performance of the STTCs over Nakagami fading channels. In this paper, we also present the performance of the STTCs designed using the EDC over Nakagami fading channels.
- D. M. Ionescu, K. K. Mukkavilli, Y. Zhiyuan and J. Lilleberg, ”Improved 8- and 16-state

**Index Terms**

Computer Science  
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**Key words**

Wireless  
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Nakagami fading  
space time coding