

# **2013 International Workshop on High Mobility Wireless Communications**

**(HMWC 2013)**

**Shanghai, China  
1-3 November 2013**



**IEEE Catalog Number: CFP13HMW-POD  
ISBN: 978-1-4673-6378-5**

# TABLE OF CONTENTS

<b>Channel Estimation And Data Detection For OFDM Systems In Practical Communications Environment</b> .....	1
<i>K. Zhong, X. Lei, S. Li</i>	
<b>A BEM Method Of Channel Estimation For OFDM Systems In High-Speed Train Environment</b> .....	6
<i>Z. Sheng, Y. Fang, C. Wang</i>	
<b>An Improved LS Channel Estimation Algorithm For Aeronautical Mobile Communications Systems</b> .....	10
<i>S. Tang, T. Zhang, Y. Jiang</i>	
<b>An Uplink Carrier Frequency Offset Tracking Method In Aeronautical Communications System</b> .....	14
<i>X. Kuai, T. Zhang, Q. Li</i>	
<b>Impacts Of High Mobility On Post-Processing SINR Estimation For MIMO-OFDM Transmissions</b> .....	19
<i>Q. Guo, H. Liu, P. Fan</i>	
<b>Low Complexity Iterative Detection Of CPM With Strong And Fast Varying Phase Noise</b> .....	24
<i>L. Bing, B. Bai</i>	
<b>Multiple Symbols Soft-Decision Metrics For Coded Frequency-Shift Keying Signals In High Mobility Wireless Communication</b> .....	29
<i>B. Shen, Z. Ma, Z. Ding</i>	
<b>Design Of Simplified Receiver For Spectrally-Efficient Multiuser CPM Systems</b> .....	P IC
<b>Blind Interference Alignment Over Homogeneous 3-User 2 x 1 Broadcast Channel</b> .....	39
<i>Q. Zhou, S. Zhang, L. Wang</i>	
<b>Security-Reliability Tradeoff For Secure Wireless Communications With Channel Estimation Error</b> .....	44
<i>G. Wang, Y. Zou, F. Gao, Z. Zhong</i>	
<b>A Physical Layer Secure Wireless Communication Scheme With Partial CSI For High Speed Railway</b> .....	48
<i>C. Yaping, X. Fang</i>	
<b>On Relay Placement Schemes For Multi-Cell LTE-A System Under Co-Channel Interference</b> .....	53
<i>C. Li, X. Zhou, W. Chen</i>	
<b>Opportunistic Packet Relaying Strategy For An OFDM-Based Mobile Relay System</b> .....	58
<i>H. Wu, X. Chen, H. Zhang, C. Yao, R. Yin, Z. Zhang</i>	
<b>Cooperative Multi-Relay Transmission For High-Speed Railway Mobile Communication System With Fountain Codes</b> .....	63
<i>X. Di, K. Xiong, P. Fan, Z. Qiu</i>	
<b>Combining Unitary Space-Time Codes And Blind Interference Alignment For Two-User Heterogeneous X Channel</b> .....	69
<i>C. Yu, L. Hao</i>	
<b>Fractional Dynamic Clustering In Downlink Cellular Network</b> .....	73
<i>X. Zhou, C. Li, W. Chen</i>	
<b>Highly Dynamic Or Semi-Static: Resource Allocation For High-Speed Mobile Terminals In 4G</b> .....	77
<i>L. Wang, F. Wang, L. Du</i>	
<b>Throughput And Fairness-Balanced Resource Allocation Algorithm In TD-LTE-Advanced Relay-Enhanced Network</b> .....	82
<i>W. Xuan-Li, Z. Wan-Jun, W. Wei</i>	
<b>An Improved Scheduling Scheme For High-Speed Rail Scenario Where Onboard-Train Users And Ordinary Users Coexist</b> .....	87
<i>M. Zhang, H. Liu, P. Fan</i>	
<b>A Seamless Dual-Link Handover Scheme Suitable For High-Speed Rail</b> .....	91
<i>X. Chen, C. Li, Y. Luo</i>	
<b>Decoupled Wireless Network Architecture For High-Speed Railway</b> .....	96
<i>L. Yan, X. Fang</i>	
<b>Two-Layer Rateless Codes Over Lattices For Gaussian Broadcast Channels</b> .....	101
<i>S. Zhao, X. Ma, K. Zhang, B. Bai</i>	
<b>A Low Complexity Extrinsic Message Based Decoding Algorithm For Non-Binary LDPC Codes</b> .....	106
<i>N. Qiu, W. Chen, Y. Yu, C. Li</i>	
<b>Unequal Error Protection Using LDPC Codes By Partial Superposition Transmission</b> .....	110
<i>K. Huang, C. Liang, X. Ma</i>	
<b>Nonbinary Network Coded Cooperation With Bit-Interleaved Coded Modulation</b> .....	115
<i>X. Ping, L. Chen</i>	

<b>Mapping And Coding Design For Channel Coded Physical-Layer Network Coding</b> .....	120
<i>X. Li, S. Zhang, G. Qian</i>	
<b>Standard Form For Balanced Complex Orthogonal Design</b> .....	126
<i>X. Liu, H. Kan</i>	
<b>Correlation Analysis Of High-Speed Railway Channel Parameters Based On Channel Measurement</b> .....	132
<i>Y. Guo, J. Zhang, C. Zhang, L. Tian</i>	
<b>How Channel Fadings Affect The System Service Of High Speed Railway Communications</b> .....	137
<i>T. Li, Z. Chen, C. Zhang, P. Fan</i>	
<b>Bounds On The Average Transmission Rate In High Speed Railway Wireless Communications</b> .....	142
<i>Y. Dong, P. Fan</i>	
<b>Performance Analysis Of MF Receiver In Noncooperative Cellular Networks With Distributed Massive MIMO</b> .....	146
<i>J. Li, Z. Zhang, C. Wang, C. Zhong</i>	
<b>Performance Analysis Of A Rate Varying Space-Time Coding Scheme</b> .....	151
<i>C. Wang, Z. Zhang</i>	