

IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS

A PUBLICATION OF THE IEEE COMMUNICATIONS SOCIETY AND THE IEEE SIGNAL PROCESSING SOCIETY



FEBRUARY 2016

VOLUME 15

NUMBER 2

ITWCAX

(ISSN 1536-1276)

Improving the Performance of the Zero-Forcing Multiuser MISO Downlink Precoder Through User Grouping	811
..... <i>Saif Khan Mohammed and Erik G. Larsson</i>	
Multicell Coordinated Scheduling With Multiuser Zero-Forcing Beamforming	827
..... <i>Min Li, Iain B. Collings, Stephen V. Hanly, Chunshan Liu, and Philip Whiting</i>	
Analysis of PKF: A Communication Cost Reduction Scheme for Wireless Sensor Networks	843
..... <i>Yanqiu Huang, Wanli Yu, Christof Osewold, and Alberto Garcia-Ortiz</i>	
Optimal Energy and Data Routing in Networks With Energy Cooperation	857
..... <i>Berk Gurakan, Omur Ozel, and Sennur Ulukus</i>	
On Achievable Multiplexing Gain of BD in MIMO Broadcast Channels With Limited Feedback	871
..... <i>Moonsik Min, Yo-Seb Jeon, and Gi-Hong Im</i>	
A Turbo-Like Transceiver for Imperfect Orthogonal Access in UWB-IR Systems	886
..... <i>Mauro Biagi, Stefania Colonnese, Gaetano Scarano, and Roberto Cusani</i>	
Backhaul-Constrained Multicell Cooperation Leveraging Sparsity and Spectral Clustering	899
..... <i>Swayambhoo Jain, Seung-Jun Kim, and Georgios B. Giannakis</i>	
Pricing Mobile Data Offloading: A Distributed Market Framework	913
..... <i>Kehao Wang, Francis C. M. Lau, Lin Chen, and Robert Schober</i>	
Alleviating Hidden and Exposed Nodes in High-Throughput Wireless Mesh Networks	928
..... <i>Sandip Chakraborty, Sukumar Nandi, and Subhrendu Chattopadhyay</i>	
A Performance Evaluation Framework for Interference-Coupled Cellular Data Networks	938
..... <i>Henrik Klessig, David Öhmann, Albrecht J. Fehske, and Gerhard P. Fettweis</i>	
Optimal Pricing and Load Sharing for Energy Saving With Cooperative Communications	951
..... <i>Yinghao Guo, Lingjie Duan, and Rui Zhang</i>	
Efficient Channel State Information Acquisition for Device-to-Device Networks	965
..... <i>Daoud Burghal and Andreas F. Molisch</i>	
Optimal and Suboptimal Joint Relay and Antenna Selection for Two-Way Amplify-and-Forward Relaying	980
..... <i>Jing Li, Leonard J. Cimini, Jr., Jianhua Ge, Chensi Zhang, and Hao Feng</i>	
The Impact of Statistical Delay Constraints on the Energy Efficiency in Fading Channels	994
..... <i>Deli Qiao</i>	
Energy-Harvesting AF Relaying in the Presence of Interference and Nakagami- <i>m</i> Fading	1008
..... <i>Yunfei Chen</i>	
Providing Services for the High-Speed Train and Local Users in the Same OFDMA System: Resource Allocation in the Downlink	1018
..... <i>Chuang Zhang and Pingyi Fan</i>	

(Contents Continued on Page 809)



Spatial Wireless Channel Prediction under Location Uncertainty	1031
. <i>L. Srikar Muppirisetty, Tommy Svensson, and Henk Wymeersch</i>	
Expectation Propagation for Near-Optimum Detection of MIMO-GFDM Signals	1045
. <i>Dan Zhang, Luciano Leonel Mendes, Maximilian Matthé, Ivan Simões Gaspar, Nicola Michailow, and Gerhard P. Fettweis</i>	
Energy Minimization For Multiresolution Multirelay Multicast Networks	1063
. <i>Zhi Chen, Pin-Han Ho, and James She</i>	
A Robust Beamforming Approach to Guarantee Instantaneous Secrecy Rate	1076
. <i>Jinho Choi</i>	
Randomly-Directional Beamforming in Millimeter-Wave Multiuser MISO Downlink	1086
. <i>Gilwon Lee, Youngchul Sung, and Junyeong Seo</i>	
Delay and Reliability Tradeoffs in Heterogeneous Cellular Networks	1101
. <i>Gongzheng Zhang, Tony Q. S. Quek, Aiping Huang, and Hangguan Shan</i>	
Initial Synchronization Exploiting Inherent Diversity for the LTE Sector Search Process	1114
. <i>Jia-Chin Lin, Yu-Ting Sun, and H. Vincent Poor</i>	
Robust Transceiver Design for SC-FDE Multi-hop Full-Duplex Decode-and-Forward Relaying Systems	1129
. <i>Peiran Wu, Robert Schober, and Vijay K. Bhargava</i>	
Traffic Offloading in Heterogeneous Networks With Energy Harvesting Personal Cells-Network Throughput and Energy Efficiency	1146
. <i>Pei-Shan Yu, Jemin Lee, Tony Q. S. Quek, and Y.-W. Peter Hong</i>	
General Stochastic Channel Model and Performance Evaluation for Underwater Wireless Optical Links	1162
. <i>Huihui Zhang and Yuhan Dong</i>	
Data-Assisted Low Complexity Compressive Spectrum Sensing on Real-Time Signals Under Sub-Nyquist Rate	1174
. <i>Zhijin Qin, Yue Gao, and Clive G. Parini</i>	
Channel Estimation, Carrier Recovery, and Data Detection in the Presence of Phase Noise in OFDM Relay Systems	1186
. <i>Rui Wang, Hani Mehrpouyan, Meixia Tao, and Yingbo Hua</i>	
Sparse Multiple Relay Selection for Network Beamforming With Individual Power Constraints Using Semidefinite Relaxation	1206
. <i>Luis Blanco and Montse Nájara</i>	
Privacy-Preserving Location Authentication in Wi-Fi Networks Using Fine-Grained Physical Layer Signatures	1218
. <i>Wei Wang, Yingjie Chen, and Qian Zhang</i>	
Optimal Scheduling and Beamforming in Relay Networks With Energy Harvesting Constraints	1226
. <i>Shimin Gong, Lingjie Duan, and Natarajan Gautam</i>	
Hitchhike: A Preamble-Based Control Plane for SNR-Sensitive Wireless Networks	1239
. <i>Xiaoyu Ji, Jiliang Wang, Mingyan Liu, Yubo Yan, Panlong Yang, and Yunhao Liu</i>	
A Robust Indoor Positioning System Based on the Procrustes Analysis and Weighted Extreme Learning Machine	1252
. <i>Han Zou, Baoqi Huang, Xiaoxuan Lu, Hao Jiang, and Lihua Xie</i>	
Detect-and-Forward Multirelay Systems With Decision-Feedback Differential Coherent Receivers	1267
. <i>Guanglei Dai and Harry Leib</i>	
A Decentralized Bayesian Algorithm For Distributed Compressive Sensing in Networked Sensing Systems	1282
. <i>Wei Chen and Ian J. Wassell</i>	
Massive MIMO for Maximal Spectral Efficiency: How Many Users and Pilots Should Be Allocated?	1293
. <i>Emil Björnson, Erik G. Larsson, and Mérouane Debbah</i>	
Downlink Hybrid Information and Energy Transfer With Massive MIMO	1309
. <i>Long Zhao, Xiaodong Wang, and Kan Zheng</i>	
Optimal Overlay Cognitive Spectrum Access With F-ALOHA in Macro-Femto Heterogeneous Networks	1323
. <i>Lu Yang, S. H. Song, and Khaled B. Letaief</i>	
On the Design of Temporal Compression Strategies for Energy Harvesting Sensor Networks	1336
. <i>Davide Zordan, Tommaso Melodia, and Michele Rossi</i>	
A Robust Maximum Likelihood Scheme for PSS Detection and Integer Frequency Offset Recovery in LTE Systems	1353
. <i>Michele Morelli and Marco Moretti</i>	
Joint Power Coordination for Spectral-and-Energy Efficiency in Heterogeneous Small Cell Networks: A Bargaining Game-Theoretic Perspective	1364
. <i>Chungang Yang, Jiandong Li, Alagan Anpalagan, and Mohsen Guizani</i>	
Decomposition by Successive Convex Approximation: A Unifying Approach for Linear Transceiver Design in Heterogeneous Networks	1377
. <i>Mingyi Hong, Qiang Li, and Ya-Feng Liu</i>	
Optimal Transmission Policies for Two-User Energy Harvesting Device Networks With Limited State-of-Charge Knowledge	1393
. <i>Davide Del Testa, Nicolò Michelusi, and Michele Zorzi</i>	

Heterogeneous Cellular Network With Energy Harvesting-Based D2D Communication	1406
..... Howard H. Yang, Jemin Lee, and Tony Q. S. Quek	
Virtual-MIMO-Boosted Information Propagation on Highways	1420
..... Zhaoyang Zhang, Hui Wu, Huazi Zhang, Huaiyu Dai, and Nei Kato	
A Circular Interference Model for Heterogeneous Cellular Networks	1432
..... Martin Tarantetz and Markus Rupp	
An MCMC-MIMO Detector as a Stochastic Linear System Solver Using Successive Overrelaxation	1445
..... Jinho Choi	
Interference Alignment With Quantized Grassmannian Feedback in the K-User Constant MIMO Interference Channel	1456
..... Mohsen Rezaee and Maxime Guillaud	
Channel Estimation Under Staggered Frame Structure for Massive MIMO System	1469
..... Deying Kong, Daiming Qu, Kai Luo, and Tao Jiang	
Closed-Form Localization for Distributed MIMO Radar Systems Using Time Delay Measurements	1480
..... Chee-Hyun Park and Joon-Hyuk Chang	
Secure Space-Time Communications Over Rayleigh Flat Fading Channels	1491
..... Xiangming Li, Rongfei Fan, Xiaoli Ma, Jianping An, and Tao Jiang	
Capacity of Wireless Networks With Social Characteristics	1505
..... Luoyi Fu, Wentao Huang, Xiaoying Gan, Feng Yang, and Xinbing Wang	
Physical-Layer Secret Key Generation With Colluding Untrusted Relays	1517
..... Chan Dai Truyen Thai, Jemin Lee, and Tony Q. S. Quek	
An Improved Threshold-Based Channel Selection Scheme for Wireless Communication Systems	1531
..... Petros S. Bithas, Athanasios A. Rontogiannis, and George K. Karagiannidis	
Distributed Synchronization for Device-to-Device Communications in an LTE Network	1547
..... Navid Abedini, Saurabh Tavildar, Junyi Li, and Tom Richardson	
The Diversity-Multiplexing Tradeoff of Secret-Key Agreement Over Multiple Antenna Channels	1562
..... Marwen Zorgui, Zouheir Rezki, Basel Alomair, and Mohamed-Slim Alouini	
Device-to-Device-Assisted Communications in Cellular Networks: An Energy Efficient Approach in Downlink Video Sharing Scenario	1575
..... Yanyao Shen, Chunxiao Jiang, Tony Q. S. Quek, and Yong Ren	
Distributed Spectrum Leasing via Vertical Cooperation in Cognitive Radio Networks	1588
..... Yuzhe Xu, Liping Wang, Carlo Fischione, and Viktoria Fodor	
On Performance and Feedback Strategy of Secure Multiuser Communications With MMSE Channel Estimate	1602
..... Zhangjie Peng, Wei Xu, Jun Zhu, Hua Zhang, and Chunming Zhao	
Coordination-based Medium Access Control With Space-reservation for Wireless Ad Hoc Networks	1617
..... Kamal Rahimi Malekshan, Weihua Zhuang, and Yves Lostanlen	
