2010 IEEE Global Telecommunications Conference

(GLOBECOM 2010)

Miami, Florida, USA
6-10 December 2010

Pages 1-864
### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>An Opportunistic Service Differentiation Routing Protocol for Cognitive Radio Networks</td>
<td>1</td>
</tr>
<tr>
<td>A New Hybrid Location-Based Ad Hoc Routing Protocol</td>
<td>6</td>
</tr>
<tr>
<td>A Secure Routing Protocol for Cluster-Based Wireless Sensor Networks Using ID-Based Digital Signature</td>
<td>12</td>
</tr>
<tr>
<td>Near-Minimum-Energy Routing in Heterogeneous Wireless Sensor Networks</td>
<td>17</td>
</tr>
<tr>
<td>RPoK: A Strongly Resilient Polynomial-Based Random Key Pre-Distribution Scheme for Multiphase Wireless Sensor Networks</td>
<td>22</td>
</tr>
<tr>
<td>PAAVE: Protocol for Anonymous Authentication in Vehicular Networks Using Smart Cards</td>
<td>27</td>
</tr>
<tr>
<td>A Scheme for Secure and Reliable Distributed Data Storage in Unattended WSNs</td>
<td>37</td>
</tr>
<tr>
<td>Collaborative Sampling in Wireless Sensor Networks</td>
<td>43</td>
</tr>
<tr>
<td>Network Coding and Service Reneging for Real-Time Communication in Sensor Networks</td>
<td>48</td>
</tr>
<tr>
<td>Using Centrality-Based Power Control for Hot-Spot Mitigation in Wireless Networks</td>
<td>80</td>
</tr>
<tr>
<td>Position Aware Node Provisioning for Solar Powered Wireless Mesh Networks</td>
<td>86</td>
</tr>
<tr>
<td>Dimension Reduction of Virtual Coordinate Systems in Wireless Sensor Networks</td>
<td>92</td>
</tr>
<tr>
<td>Widely Linear Cooperative Spectrum Sensing for Cognitive Radio Networks</td>
<td>98</td>
</tr>
<tr>
<td>Achievable Rates for Two User Cooperative OFDMA</td>
<td>103</td>
</tr>
<tr>
<td>Error Rate Performance of Network-Coded Cooperative Diversity Systems</td>
<td>108</td>
</tr>
<tr>
<td>Outage Probability and SER of Cooperative Selection Diversity in Nonregenerative MIMO Relaying</td>
<td>114</td>
</tr>
<tr>
<td>Differentiated Energy Savings in Optical Networks with Grooming Capabilities</td>
<td>120</td>
</tr>
<tr>
<td>Energy-Efficient Design of Survivable WDM Networks with Shared Backup</td>
<td>125</td>
</tr>
<tr>
<td>Energy Efficient Time-Aware Traffic Grooming in Wavelength Routing Networks</td>
<td>130</td>
</tr>
<tr>
<td>Energy-Efficient WDM Network Planning with Dedicated Protection Resources in Sleep Mode</td>
<td>135</td>
</tr>
<tr>
<td>Linear Minimum Mean-Squared Error Channel Estimation for Per-Subcarrier Antenna Selection</td>
<td>140</td>
</tr>
<tr>
<td>Low-Complexity Sparse FIR Channel Shortening</td>
<td>146</td>
</tr>
<tr>
<td>Multiple Carrier Frequency Offset and Channel Estimation for Distributed Relay Networks</td>
<td>151</td>
</tr>
<tr>
<td>Time Reversal Direction of Arrival Estimation with Cramer-Rao Bound Analysis</td>
<td>156</td>
</tr>
<tr>
<td>Opportunistic Periodic MAC Protocol for Cognitive Radio Networks</td>
<td>161</td>
</tr>
<tr>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Cognitive MAC Protocol with Transmission Tax: Dynamically Adjusting Sensing and Data Performance</td>
<td>167</td>
</tr>
<tr>
<td>Maximise Secondary User Throughput via Optimal Sensing in Multi-Channel Cognitive Radio Networks</td>
<td>172</td>
</tr>
<tr>
<td>A Real Time Testbed for the Evaluation of Cognitive Radio MAC</td>
<td>177</td>
</tr>
<tr>
<td>Relay Station Placement for Cooperative Communications in WiMAX Networks</td>
<td>182</td>
</tr>
<tr>
<td>Fairness Schemes in 802.16j Mobile Multihop Relay Networks</td>
<td>187</td>
</tr>
<tr>
<td>Cross-Layer Uplink Scheduler for the IEEE 802.16 Standard</td>
<td>192</td>
</tr>
<tr>
<td>Cross-Layer Self-Optimizing Temporal-Spectrum Block Scheduling for QoS Provisioning in WiMAX</td>
<td>198</td>
</tr>
<tr>
<td>Critical Phase of Connectivity in Wireless Network Expansion</td>
<td>203</td>
</tr>
<tr>
<td>Fast Heuristic Algorithm for Joint Topology Design and Load Balancing in FSO Networks</td>
<td>208</td>
</tr>
<tr>
<td>An Reformulation-Linearization Technique-Based Approach to Joint Topology Design and Load Balancing in FSO Networks</td>
<td>213</td>
</tr>
<tr>
<td>Cooperation Stimulation in Cognitive Networks Using Indirect Reciprocity Game Modelling</td>
<td>219</td>
</tr>
<tr>
<td>Incentive Schemes for Data Collaboration in Disruption Tolerant Networks</td>
<td>224</td>
</tr>
<tr>
<td>Routing and Link Layer Protocol Design for Sensor Networks with Wireless Energy Transfer</td>
<td>229</td>
</tr>
<tr>
<td>Link Loss Inference in Wireless Sensor Networks with Randomized Network Coding</td>
<td>239</td>
</tr>
<tr>
<td>A POMDP Based K-Coverage Dynamic Scheduling Protocol for Wireless Sensor Networks</td>
<td>245</td>
</tr>
<tr>
<td>Privacy Preserving Group Nearest Neighbour Queries in Location-Based Services Using Cryptographic Techniques</td>
<td>250</td>
</tr>
<tr>
<td>Sacrificing the Plum Tree for the Peach Tree: A Socialspot Tactical for Protecting Receiver-Location Privacy in VANET</td>
<td>255</td>
</tr>
<tr>
<td>An Efficient Privacy-Preserving Publish-Subscribe Service Scheme for Cloud Computing</td>
<td>260</td>
</tr>
<tr>
<td>Private Identification of RFID Tags</td>
<td>265</td>
</tr>
<tr>
<td>Trusted Network Coding in Wireless Ad Hoc Networks</td>
<td>271</td>
</tr>
<tr>
<td>Preventing Traffic Explosion and Achieving Source Unobservability in Multi-Hop Wireless Networks Using Network Coding</td>
<td>276</td>
</tr>
<tr>
<td>Rethinking about Type-Flaw Attacks</td>
<td>281</td>
</tr>
<tr>
<td>A Lite Security Solution for SIP Networks</td>
<td>286</td>
</tr>
<tr>
<td>Practical Searching over Encrypted Data by Private Information Retrieval</td>
<td>292</td>
</tr>
<tr>
<td>Integrating Security with QoS in Next Generation Networks</td>
<td>297</td>
</tr>
<tr>
<td>Ergodic Secrecy Rate for Gaussian MISO Wiretap Channels with Non-Trivial Covariance</td>
<td>302</td>
</tr>
<tr>
<td>Accelerating String Matching Using Multi-Threaded Algorithm on GPU</td>
<td>312</td>
</tr>
<tr>
<td>Impact of Network Address Translator Traversal on Delays in Peer-to-Peer Session Initiation Protocol</td>
<td>317</td>
</tr>
<tr>
<td>Towards a Scalable Content-Based Publish/Subscribe Service over DHT</td>
<td>323</td>
</tr>
<tr>
<td>Capability and Responsibility Balancing in Online Social Search</td>
<td>329</td>
</tr>
<tr>
<td>Enabling Next Generation Multimedia Social Services</td>
<td>334</td>
</tr>
</tbody>
</table>

Authors:
- Jose Simoes, Sebastian Lampe, Thomas Magedanz
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficient Channel Search Algorithms for Cognitive Radio in a Multichannel System</td>
<td>340</td>
</tr>
<tr>
<td>Performance Enhancement for Unlicensed Users in Coordinated Cognitive Radio Networks via Channel Reservation</td>
<td>345</td>
</tr>
<tr>
<td>Sensing Users Selection with Overhead Reduction for Cognitive Wireless Ad-Hoc Networks</td>
<td>350</td>
</tr>
<tr>
<td>Reliable Cooperative Spectrum Sensing Algorithm Based on Dempster-Shafer Theory</td>
<td>355</td>
</tr>
<tr>
<td>Connection Admission versus Load Balancing</td>
<td>360</td>
</tr>
<tr>
<td>A Type-2 Fuzzy Logic Decision System for Call Admission Control in Next Generation Mobile Networks</td>
<td>365</td>
</tr>
<tr>
<td>Admission Control Policies for Revenue and Utility Maximization in IEEE 802.16 Networks</td>
<td>371</td>
</tr>
<tr>
<td>Analysis of a Distributed Queuing Medium Access Control Protocol for Cooperative ARQ</td>
<td>376</td>
</tr>
<tr>
<td>Joint Use of Custody Transfer and Erasure Codes in DTN Space Networks: Benefits and Shortcomings</td>
<td>381</td>
</tr>
<tr>
<td>Large File Transfers from Space Using Multiple Ground Terminals and Delay-Tolerant Networking</td>
<td>386</td>
</tr>
<tr>
<td>Comparative Analysis of Interplanetary and Pervasive Communications</td>
<td>392</td>
</tr>
<tr>
<td>Licklider Transmission Protocol (LTP)-Based DTN for Long-Delay Cislunar Communications</td>
<td>397</td>
</tr>
<tr>
<td>Designing Packet Buffers Using Random Round Robin</td>
<td>402</td>
</tr>
<tr>
<td>Thermal Control for Crossbar-Based Input-Queued Switches</td>
<td>407</td>
</tr>
<tr>
<td>Modeling Optimal Organization of the Internet-Based Computation in the Cloud Computing Environment</td>
<td>412</td>
</tr>
<tr>
<td>Achieving Flow Level Constant Performance Guarantees for CICQ Switches without Speedup</td>
<td>418</td>
</tr>
<tr>
<td>A Social Accountability Framework for Computer Networks</td>
<td>423</td>
</tr>
<tr>
<td>Hierarchical Notification Dissemination for IMS Presence Using Network Coordinates</td>
<td>429</td>
</tr>
<tr>
<td>User Subscription Dynamics in Communication Markets</td>
<td>434</td>
</tr>
<tr>
<td>Relative Delay Estimator for SCTP-Based Concurrent Multipath Transfer</td>
<td>439</td>
</tr>
<tr>
<td>Empirical Analysis of Core-Edge Separation by Decomposing Internet Topology Graph</td>
<td>445</td>
</tr>
<tr>
<td>MU-MIMO Downlink Transmission Strategy Based on the Distributed Antennas for 3GPP LTE-A</td>
<td>450</td>
</tr>
<tr>
<td>Optimality Properties and Low-Complexity Solutions to Coordinated Multicell Transmission</td>
<td>461</td>
</tr>
<tr>
<td>Updated Basis Lattice Reduction Based Sequential User Selection for Multiuser MIMO Systems</td>
<td>467</td>
</tr>
<tr>
<td>Achieving Energy Efficiency via Drowsy Transmission in Cognitive Radio</td>
<td>472</td>
</tr>
<tr>
<td>Statistical Modeling of Cognitive Network Interference</td>
<td>478</td>
</tr>
<tr>
<td>Impact of Noise Power Uncertainty on Cooperative Spectrum Sensing in Cognitive Radio Systems</td>
<td>484</td>
</tr>
<tr>
<td>Learning Interference Strategies in Cognitive ARQ Networks</td>
<td>489</td>
</tr>
<tr>
<td>Packet-Reliability-Based Decode-and-Forward Distributed Space-Time Shift Keying</td>
<td>495</td>
</tr>
<tr>
<td>An Analysis of Two-Way Multi-Node Relay Systems</td>
<td>500</td>
</tr>
<tr>
<td>Amplify-and-Forward Selection Cooperation with Channel Estimation Error</td>
<td>506</td>
</tr>
<tr>
<td>Power Optimization in Adaptive Relay Networks</td>
<td>512</td>
</tr>
</tbody>
</table>
Low-Complexity Coordinated Beamforming Transmission for Multiuser MISO Systems and Its Performance
Analysis .................................................................................................. 517
Jan Zhu, Hong-Chuan Yang

MIMO Transmission with Rank Adaptation for Multi-Gigabit 60GHz Wireless................................................................. 522
Meilong Jiang, Guosun Yue, Sampath Rangarajan

Impact of Imperfect Channel Estimation on MIMO Two Hop Relay Network with Beamforming ........................................... 527
K. G. A. Madushan Thilina, Pandana Ratnawasaya

Frequency-Domain Digital Calibration and Beamforming with Wideband Antenna Array ...................................................... 532
Xinjiong Huang, Val Dyakonov, Joseph Pathikulangara

Cross-Layer Design for Interference-Limited Spectrum Sharing Systems ............................................................................. 537
K. Nehra, A. Shadmand, M. Shikh-Bahaei

Rudranrima Ramamoni, Jonghyun Lee, Kei Sakaguchi, Kiyomichi Araki

Cross-Layer Channel Allocation Protocol for OFDMA Ad Hoc Networks ........................................................................... 547
Mingmeng Liang, Rongxing Lu, Xiaodong Liu, Xuemin Shen

Multi-User Buffer Control with Drift Fields .......................................................................................................................... 553
Vinay Magji, Daniel O’Neill, Carolin Huppert, John Cioffi

Efficiency of Filter Bank Multicarrier Techniques in Burst Radio Transmission ................................................................. 558
Maurice Bellanger

On the Throughput Maximization of Spectrum Sharing Cognitive Radio Networks ......................................................................................................................... 562
Sierigos Stotia, Arumugam Nallanathan

A Framework for Resource Allocation in a Cognitive Digital Home ......................................................................................... 567
Tianming Li, Narayan B. Mandayam, Alex Reznik

Opportunistic Spectrum Access in Cognitive Relay Networks Based on White Space Modeling............................................. 572
Zhe Wei, Wei Zhang

Performance Analysis of Cognitive Radio Systems under QoS Constraints and Channel Uncertainty .................................... 577
Sami Akkin, Mustafa Cenk Garsoy

Opportunistic Routing with Adaptive CSMA/CA in Wireless Mesh Networks ................................................................. 582
Mathias Karkh, Jens-Peter Radlitch

GW-GEM: A Reliable Routing Algorithm for Wireless Sensor Networks ........................................................................... 588
Qiang Ye, Junjun Li, Yanxia Jia, HongWei Du

Maximum Lifetime Broadcast and Multicast Routing in Unreliable Wireless Ad-Hoc Networks ......................................... 594
Peng Li, Song Guo, Hai Jin, Victor Leung

EMAC: An Asynchronous Routing-Enhanced MAC Protocol in Multi-Hop Wireless Networks ........................................... 599
Shu Du, Yanjun Sun, David B. Johnson

Message Authentication with Non-Transferability for Location Privacy in Mobile Ad hoc Networks....................................... 605
Nasrin Ghassemi, Mohammed Younis, Rahul Waknis

A Bayesian Statistical Model to Alleviate Greediness in Wireless Mesh Networks ............................................................... 610
Soufiene Djalil, Youcef Beigriche, Farid Nait-Abdesselam

Deploying Proxy Signature in VANETs ..................................................................................................................................... 616
Subir Bhowmik, Jeela Mistic

Mobi-Sync: Efficient Time Synchronization for Mobile Underwater Sensor Networks ......................................................... 622
Jin Liu, Zhong Zhou, Zhong Peng, Jun-Hong Cai

Degree Constrained Topology Control for Very Dense Wireless Sensor Networks ................................................................. 627
Jaewook Yu, Eric Noel, K. Wendy Tang

Topology Aware Link Throughput of Slotted Aloha in Rayleigh Block Fading Channels ......................................................... 633
Arash T. Toyserkani, Erik G. Strom, Arne Svensson

Connectivity Restoration in Wireless Sensor Networks Using Steiner Tree Approximations ................................................. 639
Mohamed Younis, Rahul Waknis

Optimal Sensor Density in a Distortion-Tolerant Linear Wireless Sensor Network ............................................................... 644
Jose Barrameda, Nancy Saman

Secured Two Phase Geographic Forwarding Protocol in Wireless Multimedia Sensor Networks ........................................ 649
Taye Muhgeta, Lei Shu, Manfred Hauswirth, Min Chen, Takahiro Haru, Shojiro Nishio

Dynamic Slot Allocation Algorithm for R-ALOHA with Priority (PR-ALOHA) ................................................................. 655
Nasreen Alsabt, Hazem Refai

Solution Space Characterization and a Fast Algorithm for the Channel Assignment Problem in Wireless Mesh Networks ................................................................. 661
Jose Barrameda, Nancy Saman

Self-Deployment Algorithms for Coverage Problem in a Network of Mobile Sensors with Unidentical Sensing Ranges ................................................................................................................... 667
Hamid Mahboubi, Kaveh Moezzi, Amir G. Aghdam, Kamran Sayrafian-Pour, Vladimir Marbukh

Waveform Design and Optimization in Radar Sensor Network ...................................................................................................... 673
Lei Xu, Qihan Liang

Chip Design of a 0.18µm RF CMOS-Based Analog Low-Pass Filter for WSN RF Front-End ..................................................... 678
Xiaogang Fan, Chihkang Zhu, Lei Zhang

ROME: Rateless Online MDS Code for Wireless Data Broadcasting ......................................................................................... 683
Nengjiang He, Yi Xu, Jianhong Cao, Zhu Li, Hongsong Chen, Yong Ren

MIMO Bidirectional Broadcast Channels with Common Message ...................................................................................................... 688
Rafael F. Wyrembelski, Tobias J. Oechtering, Holger Boche
Degrees of Freedom Region of the Gaussian MIMO Broadcast Channel with Common and Private Messages

On the Use of the Gap Approximation for the Gaussian Broadcast Channel

A New Heuristic for Monitoring Trail Allocation in All-Optical WDM Networks

Optimal Allocation of Monitoring Trails for Fast SRLG Failure Localization in All-Optical Networks

Monitoring-Tree: An Innovative Technique for Failure Localization in WDM Translucent Networks

Analyzing the Receiver Operating Characteristics of Novel Fiber Ring Based PON Monitoring System

ML Estimation of Signal Amplitude in Laplace Noise

Indoor Channel Measurements and Models at 2.4 GHz in a Hospital

Reduced-Complexity Soft-Output Viterbi Algorithm for Channels Characterized by Dominant Error Events

AMC Improvements from Robust Estimation

Optimization of Periodic Channel Sensing by Secondary Users in a Cognitive Radio Network

Opportunistic Energy-Aware Channel Sensing Schemes for Dynamic Spectrum Access Networks

Collaborative Spectral Sensing Based on Signal Correlation in Cognitive Radio Networks

A Game Theoretical Approach for Load Balancing User Association in 802.11 Wireless Networks

Adaptive Carrier-Sensing for Throughput Improvement in IEEE 802.11 Networks

Adaptive Spectrum Distribution in WLANs

Measurement Based Investigation of Indoor IEEE 802.11g Channel Dynamics

A Socially-Based Routing Protocol for Delay Tolerant Networks

Trust Management for Encounter-Based Routing in Delay Tolerant Networks

Prediction Assisted Single-Copy Routing in Underwater Delay Tolerant Networks

Improving Dominating Set routing performance via node mobility model

An Energy Efficient Network Architecture for Infrastructured Wireless Networks

Dimming Cellular Networks

Resource Utilization Mechanism for Multi-Rate Ultra-Wide-Band Networks

Inter-Operator Resource Sharing Decisions under Uncertainty

Optimal Bandwidth Allocation with Dynamic Service Selection in Heterogeneous Wireless Networks

When Idle is Not Quiet: Energy-Efficient Platform Design in Presence of Network Background and Management

Traffic

Preserving Privacy in Emergency Response Based on Wireless Body Sensor Networks

On the Privacy of Encrypted Skype Communications

FLIP: An Efficient Privacy-Preserving Protocol for Finding Like-Minded Vehicles on the Road

Privacy Enhanced RFID Using Quasi-Dyadic Fix Domain Shrinking

Practical Defenses for Evil Twin Attacks in 802.11

Authenticating MIMO Transmissions Using Channel-Like Fingerprinting

A Lightweight Stream Cipher WG-7 for RFID Encryption and Authentication
Dynamic Base Station Selections for QoS Provisioning over Distributed MIMO Links ................................................................. 1412
Performance Analysis of the Quick Idle State Protocol of CDMA 1xEV-DO Rev. B Systems .......................................................... 1417
Venkatesh Ramaswamy, Jue Chang
Hit Optimal Cache for Wireless Data Access......................................................... 1422
Mursalin Akon, Mohammad Towhidul Islam, Xuemin Shen, Ajit Singh
Adaptive Modulation in Wireless Networks with Smoothed Flow Utility ................... 1427
Ekine Akinyiho, Stephen Boyd, Daniel O’Neill
Capacity of Wireless Hybrid Networks with Successive Interference Cancellation 1432
Davis Kirchaitavanich, Qilian Liang
Spectrum Pooling-Based Optimal Internetwork Spectrum Sharing for Cognitive Radio Systems ..................................................... 1437
Pengbo Si, F. Richard Yu, Baizhe Yang, Yanhua Zhang
On Measuring Email-Based Social Network Trust .............................................. 1442
Dijiang Huang, Vietri Arasan
WIM: A Wage-Based Incentive Mechanism for Reinforcing Truthful Feedbacks in Reputation Systems ......................................... 1447
Huangyin Zhao, Xin Yang, Xiaolin Li
Provenance-Based Information Trustworthiness Evaluation in Multi-Hop Networks ................................................................. 1452
Xinlei Wang, Kannan Govindan, Prasant Mohapatra
Coping with Traitor Attacks in Reputation Models for Wireless Sensor Networks ........................................................................... 1457
Shenlen Chen, Yuqing Zhang, Peng Liu, Jingyu Peng
Signaling Architecture for Network Traffic Authorization ........................................ 1463
Se Gi Hong, Henning Schulzrinne, Sven Weiland
Credible-BGP: A Hybrid Cryptosystem to Secure BGP ........................................... 1469
On the Robustness of the Botnet Topology Formed by Worm Infection .................. 1475
Qian Wang, Zhengchen Chen, Chao Chen, Niki Pissinou
Node Behavior Based Fast Malware Detection for Enterprise Networks ............... 1481
Su Chang, Thomas E. Daniels
Distance Bounding Protocols on TH-UWB Radios .............................................. 1486
Ahmed Benfalah, Benoit Moscinec, Jean-Marie Gorce, Cedric Lauradoux, Bernard Roux
Performance Evaluation of a Hybrid Cryptosystem with Authentication for Wireless Ad hoc Networks .............................................. 1492
Yonglin Ren, Azzedine Boukerche, Richard Werner Nelnemuzzi
A Modified Fuzzy Vault Scheme for Biometrics-Based Body Sensor Networks Security ................................................................. 1497
Fen Mao, Shu-De Bao, Ye Li
Time Correlation Analysis of Secret Key Generation via UWB Channels ............... 1502
Masoud Ghorbeshi Madiseh, Stephen W. Neville, Michael L. McGuire
Integrated UCON-Based Access Control and Adaptive Intrusion Detection for Wireless Sensor Networks ........................................ 1508
Jia Wu, Shigeru Shimamoto
Analysis of Certificate Revocation List Distribution Protocols for Vehicular Networks ............................................................................ 1513
Yagesh Kondareddy, Giovanni Di Crescenzo, Prathima Agrawal
XenTune: Detecting Xen Scheduling Bottlenecks for Media Applications ......... 1518
Min Lee, A. S. Krishnakumar, P. Krishnan, Navjot Singh, Shalini Yajnik
Scheduling Grid Applications on Clouds ................................................................. 1524
Cesar G. Chavez, Daniel M. Batista, Nelson L. S. Da Fonseca
Enabling Ambient Aware Service Delivery in Heterogeneous Wireless Environments 1529
Marius Corici, Thomas Magedanz, Dragos Vingarzan, Peter Weik
VNC in High-Latency Environments and Techniques for Improvement .............. 1535
Taurin Tan-Atichat, Joseph Pasquale
Applying Active Window Management for Jitter Control and Loss Avoidance in Video Streaming over TCP Connections ..................... 1540
Alfio Lombardo, Carla Panarello, Giovanni Schembera
Case Study of Internet Links: What Degrades Video QoE? .................................. 1546
Mukundan Venkataraman, Mainak Chatterjee
Methods of Selecting Threshold for the QoE-Based Video Output Scheme SCS .... 1552
Shuji Tasaka, Akifumi Hirashima
Modeling of Transmission Distortion for Multi-View Video in Packet Lossy Networks ................................................................. 1558
Yuan Zhou, Chunping Hou, Wei Xiang
Peer-to-Peer Storage Systems: A Practical Guideline to be Lazy ....................... 1563
Frederic Giroire, Julian Monteiro, Stephane Perennes
Are a Few Neighboring Peers Good Enough? ....................................................... 1569
Lili Zhong, Jie Dai, Bo Li, Baochun Li, Hai Jin
Efficient Uplink Bandwidth Utilization in P2P-TV Streaming Systems ............... 1574
Alexandra Carta, Marco Melia, Michela Meo, Stefano Traverso
DHTtrust: A Robust and Distributed Reputation System for Trusted Peer-to-Peer Networks ...................................................... 1580
Yaqiong Liu, Weitian Xue, Keqin Li, Zhongxian Chi, Gyeong Min, Wenyu Qin
Optimal Defense against Jamming Attacks in Cognitive Radio Networks Using the Markov Decision Process Approach .................. 1586
Yongle Wu, Beihe Wang, K. J. Ray Liu
Case Study: Security Analysis of a Dynamic Spectrum Access Radio System .... 1591
Timothy R. Newman, T. Charles Clancy, Mark McHenry, Jeffrey H. Reed
Denial of Service Attacks in Cognitive Radio Networks through Channel Eviction Triggering .......................................................... 1597
Z. Jin, S. Anand, K. P. Subbalakshmi

Robust Spectrum Decision Protocol against Primary User Emulation Attacks in Dynamic Spectrum Access Networks .......................................................... 1602
M. Attar, A. Royer, V. C. M. Leung

A Tunnel-Aware Language for Network Packet Filtering .................................................................................................................. 1607
Luigi Cininiero, Marco Leogrande, Liu Lu, Pulvio Risso, Olivier Morandi

Incremental Forwarding Table Aggregation .............................................................................................................................. 1613
Xiukang Lu, Qishi Wu, Nageshwar S. R. Bao, Zongmin Wang

Experience on Applying Push Model to Packet Processors in High Performance Routers .......................................................... 1619
Bo Yuan, Hongbo Zhao, Chengchen Hu, Bin Liu, Jia Yu, Lasmi Bhunam

Cache-Based Scalable Deep Packet Inspection with Predictive Automaton .................................................................................. 1624
Yi Tang, Junchun Jiang, Xiaofei Wang, Yi Wang, Bin Liu

Odd for Even: A Selfishness Prevention File Swap Scheme for BitTorrent .................................................................................. 1629
Miao Wang, Tujun Zhang, Guojie Li

Assessing the Impact of Geographically Correlated Failures on Overlay-Based Data Dissemination .......................................................... 1635
Kyungho Kim, Nalini Venkataraman

On the Use of Concurrent Multipath Transfer over Asymmetric Paths .......................................................................................... 1640
Thomas Dreibelsholz, Martin Becke, Erwin P. Rathgeb, Michael Tuten

An Analytic Model for the Stream Control Transmission Protocol .................................................................................................. 1646
T. Daniel Wallace, Abdallah Shami

On Parallel UDP-Based Transport Control over Dedicated Connections .................................................................................. 1651
Yaxiang Lu, Qishi Wu, Nageshwar S. R. Bao, Zongmin Wang

Energy-Efficient Power Loading for a MIMO-SVD System and Its Performance in Flat Fading .......................................................... 1656
Raghuveendra S. Prabhu, Babak Daneshvar

User Selection with Throughput-Fairness Tradeoff for MIMO Broadcast Channels ........................................................................ 1661
Ziqing Ye, Kai Niu, Zhiqiang He

A Novel Capacity Outer Bound for the MIMO Gaussian Interference Channel and Application to Relay-Assisted Communications .......................................................................................................................... 1666
Oussama Soualhi, Tommasi Ohnuki

Space-Time Correlation Properties of a 3D Two-Sphere Model for Non-Isotropic MIMO Mobile-to-Mobile Channels .......................................................................................................................... 1671
Yi Yuan, Xiang Cheng, Cheng-Xiang Wang, David I. Laurenson, Xiaohu Ge, Feng Zhao

Experimental Study of Cooperative Spectrum Sensing for Cognitive Radio .................................................................................. 1676
Yoshimitsu Yagi, Takuto Ohno, Hidekazu Murata, Koji Yamamoto, Susumu Yoshida

Capacity for Spectrum Sharing Cognitive Radios with MRC Diversity and Imperfect Channel Information from Primary User .......................................................................................................................... 1681
Buijen Deng, Ritu Jumli, Mohammend Elmunreti, Reino Vennakoski

Classification of Forward Error Correction Codes .......................................................................................................................... 1686
R. M. Buehrer

Dual Methods for Power Allocation for Radios Coexisting in Unlicensed Spectra ........................................................................ 1692
Kandasamy Ilanko, Alagan Anpalagan, Dimitri Androutsos

Distributed Analog Channel Coding for Wireless Relay Networks .................................................................................................. 1697
Md. Shahi Abrani, Yonghui Li, Branka Vucetic

Amplify-and-Forward Relay Selection with Updated Channel State Information .................................................................................. 1703
Dionisidis M. Michalopoulos, Himel A. Sarker, George K. Karagiannidis, Robert Schober

Transceiver Design for Multi-User Multi-Antenna Two-Way Relay Channels ................................................................................ 1709
Can Sun, Yonghui Li, Branka Vucetic, Chenyang Yang

Performance of Energy Detection: A Complementary AUC Approach .......................................................................................... 1714
Saman Aspatani, Chinthu Tellambura, Hai Jiang

MMSE Relay Design for Multi-Antenna Two-Hop Downlinks with Finite-Rate Feedback ........................................................................ 1719
Wei Xu, Xiaodai Dong

Limited Feedback-Based Unitary Precoder Design in Rician MIMO Channel via Trellis Exploration Algorithm .......................................................................................................................... 1724
Dalin Zhu, Balasubramaniam Natarajan

A Reduced Feedback Precoder for Cooperative Relay Networks .................................................................................................. 1730
Kyeong Jin Kim, Yi-Jia Fan, Ronald A. Iltis, H. Vincent Poor

On the Minimum Differential Feedback for Time-Correlated MIMO Rayleigh Block-Fading Channels ........................................................................ 1735
Leiming Zhang, Lingyang Song, Meng Ma, Bingli Jiao

Pilot Design for Channel Estimation in OFDM-Based Cognitive Radio Systems .................................................................................. 1740
Die Hu, Lianghu He

A Suboptimal Sensing Scheme for OFDM Signal Based on Pilots Estimation in Cognitive Radios ........................................................................ 1745
Wenshan Yin, Pinyi Ren

BEM-Based Estimation for Time-Varying Channels and Training Design in Two-Way Relay Networks ........................................................................ 1751
Gongyu Wang, Feifei Gao, Chinthu Tellambura

Estimation, Training, and Effect of Timing Offsets in Distributed Cooperative Networks .......................................................................................... 1756
Hani Mehrpooya, Steven D. Blostein

Experimental Evaluation of an IEEE 802.11n Wireless LAN System Employing Lattice Reduction Aided MIMO Detection .......................................................................................................................... 1761
Josep Soler-Garrido, Daizuke Takeda, Yoshimasa Egashira
Transceiver Design in Multiuser MISO Systems with Limited Feedback

Marios H. Carmanata, Iraza Salas, Josef A. Nossek

A Novel Continuous Wave Interference Detectable Adaptive Notch Filter for GPS Receivers

Ying-Ren Chien, Yi-Cheng Huang, De-Nan Yang, Wen-Hai Tsao

On the Performance of Spectrum Sensing Algorithms Using Multiple Antennas

Ying-Chang Liang, Guangming Pan, Yonghong Zeng

New FIR Filter Design for Both Spectrum Matching and Inverse System Approximation

Shih Yu Chang, Hsiao-Chun Wu

Coding-Aware Routing for Unicast Sessions in Multi-Hop Wireless Networks

Yongxiang Peng, Yang Yang, Xiaoliang Lu, Xuyang Ding

GSQR: A Quality Aware Anycast Routing Protocol for Wireless Mesh Networks

Amitangshu Pal, Asis Nasiupri

High-Performance Multicast Routing in Multi-Channel Multi-Radio Wireless Mesh Networks

Hoang Lan Nguyen, Yuen Trang Nguyen

Mitigating Load Imbalance in Wireless Mesh Networks with Mixed Application Traffic Types

A CSMA/CA MAC Protocol for Multi-User MIMO Wireless LANs

Michelle X. Gong, Eldad Perahia, Robert Stacey, Roy Want, Shiven Mao

Power Efficient Time-Controlled CSMA/CA MAC Protocol for Lunar Surface Networks

Xudong Wang

Directional CSMA/CA Protocol with Spatial Reuse for mmWave Wireless Networks

Michelle X. Gong, Dmitry Akhmetov, Roy Want, Shiven Mao

A Novel Random Access Mechanism for OFDMA Wireless Networks

Xudong Wang, Hao Wang

Stochastic Optimization for Joint Resource Allocation in OFDMA-Based Relay System

Bai Yin, Yu Zhang, Hsiao-Hwa Chen, Guanding Yu, Zhaoyang Zhang

On Exploiting Cooperative, Channel and Multiuser Diversities in Wireless Relay Networks

Juan Tang, Brendan Mumey, Kairat Zhiltsev, Richard S. Wolff

Achieving Full Rate Network Coding with Constellation Compatible Modulation and Coding

Suhua Tang, Hiroyuki Yomo, Tetsuro Ueda, Ryu Miura, Sadao Obana

Opportunistic Communications in Infostation Systems: Delay and Stability Analysis

Laorda Galiulotto, Giacomo Morabito, Arti L. Moostakhs, Sergio Palazzo

Exploiting Space-Time Correlations in an RFID Tag Field for Localization and Tracking

Victor K. Y. Wu, Nitin H. Vaidya

Node Localization in Wireless Networks through Physical Layer Network Coding

Zhiwei Li, Di Pu, Weichao Wang, Alex Wyglinski

Constructing Secure Localization Systems with Adjustable Granularity Using Commodity Hardware

Mingkai Zhang, Thomas L. Porta, Patrick McDaniel, Abhijit Ghash

Cross-Layer Attack and Defense in Cognitive Radio Networks

Wenkei Wang, Yan Sun, Husheng Li, Zhu Han

Dynamic Spectrum Allocation Based Confidentiality for Cognitive Radio Networks

Chao Zou, Chunxia Chigan

Detection of Resource-Drained Attacks on SIP-Based Wireless VoIP Networks

Jin Tang, Yong Hao, Yu Cheng, Chi Zhou

ESPRT: Efficient Security Scheme for Position-Based Routing in Vehicular Ad Hoc Networks

Nizar Alsharif, Albert Wasef, Xuemin Shen

Queuing Analysis of Network Firewalls

K. Salah

Attribute-Based Conditional Proxy Re-Encryption with Chosen-Ciphertext Security

Jing Zhao, Dengguo Feng, Zhenfeng Zhang

A Modified Multi-Resolution Approach for Port Scan Detection

Hyun-Chul Shin, Youngmoon Yi, Keechoong Cho

Performance Assessment of Caching and Forwards Algorithms for Vehicular Delay Tolerant Networks

Bruno M. Silva, Farid Farahmand, Joel J. P. C. Rodrigues

Reliable Routing Based on Energy Prediction for Wireless Multimedia Sensor Networks

Kai Lin, Min Chen

Energy-Efficient Location-Dependent Key Management Scheme for Wireless Sensor Networks

Lin He, Yi-Ting Zhang, Lei Shu, Athanasios V. Vasilakos, Myong-Soon Park

NetViewer: A Universal Visualization Tool for Wireless Sensor Networks

Lan Li, Zhaixia Yuan, Ning Ding

Exploiting Peer-to-Peer Technology for Network and Resource Management in Interactive Broadcasting Environments

E. Markakis, E. Pallis, C. Skianis, V. Zacharakopoulos

Unveiling Popularity of BitTorrent Darknets

Xiaowei Chen, Xiaowen Chu, Zhonghua Lin

Mobile P2P Multicast Based on Social Network Reducing Psychological Forwards Cost

Yongxiang Ma, Lei Wang, Lei Shu, Jing Zhao, Yinghao Wang, Guang Li

Selfishness-Aware Application-Layer Multicast

Miao Wang, Ge Peng, Yujun Zhang, Guangli Li
A Hybrid Approach to CAM-Based Longest Prefix Matching for IP Route Lookup ................................................................. 2124
A Resilient Routing Policy for Peering Management .................................................................................................................. 2129
A Resilient Routing Policy for Peering Management .................................................................................................................. 2129
Correlation-Resilient Path Selection in Multi-Path Routing ........................................................................................................ 2140
Is High Quality Sensing Really Necessary for Opportunistic Spectrum Usage? ................................................................. 2146
Is High Quality Sensing Really Necessary for Opportunistic Spectrum Usage? ................................................................. 2146
Optimization of Cooperative Spectrum Sensing in Ad-Hoc Cognitive Radio Networks ................................................................. 2152
Optimization of Cooperative Spectrum Sensing in Ad-Hoc Cognitive Radio Networks ................................................................. 2152
Soft Sensing-Based Multiple Access for Cognitive Radio Networks .............................................................................................. 2157
Soft Sensing-Based Multiple Access for Cognitive Radio Networks .............................................................................................. 2157
Jointly Optimal Sensing Selection and Power Allocation for Cognitive Communications .............................................. 2163
Jointly Optimal Sensing Selection and Power Allocation for Cognitive Communications .............................................. 2163
A Spectrum Trading Model with Strict Transmission Power Control ....................................................................................... 2173
Congestion Exposure in Mobile Wireless Communications ........................................................................................................ 2178
Access Network Reselection Based on Momentary Resources in a Converged Wireless Environment ....................................... 2184
Access Network Reselection Based on Momentary Resources in a Converged Wireless Environment ....................................... 2184
LTE Relay Architecture and Its Upper Layer Solutions ................................................................................................................ 2196
LTE Relay Architecture and Its Upper Layer Solutions ................................................................................................................ 2196
Range-Key Extension of the Skip Graph ........................................................................................................................................ 2202
Range-Key Extension of the Skip Graph ........................................................................................................................................ 2202
Asynchronous vs Synchronous Input-Queued Switches .................................................................................................................. 2208
Asynchronous vs Synchronous Input-Queued Switches .................................................................................................................. 2208
An Opportunistic Cross-Layer Architecture for New Generation Networks ................................................................................ 2213
An Opportunistic Cross-Layer Architecture for New Generation Networks ................................................................................ 2213
Achieve the Degrees of Freedom of K-User MIMO Interference Channel with a MIMO Relay ............................................. 2218
Achieve the Degrees of Freedom of K-User MIMO Interference Channel with a MIMO Relay ............................................. 2218
Layered Tabu Search Algorithm for Large-MIMO Detection and a Lower Bound on ML Performance ...................... 2223
Layered Tabu Search Algorithm for Large-MIMO Detection and a Lower Bound on ML Performance ...................... 2223
Joint Iterative Channel Estimation and Data Detection for MIMO-CDMA Systems over Frequency-Selective ....................... 2228
Joint Iterative Channel Estimation and Data Detection for MIMO-CDMA Systems over Frequency-Selective ....................... 2228
Fading Channels .................................................................................................................................................................................. 2240
Fading Channels .................................................................................................................................................................................. 2240
A Two-Step Compressed Spectrum Sensing Scheme for Wideband Cognitive Radios .............................................................. 2240
A Two-Step Compressed Spectrum Sensing Scheme for Wideband Cognitive Radios .............................................................. 2240
On the Performance of an LTE SFBC System in Frequency-Selective Channels in the Presence of Channel .............. 2245
On the Performance of an LTE SFBC System in Frequency-Selective Channels in the Presence of Channel .............. 2245
Estimation Errors ................................................................................................................................................................................ 2255
Estimation Errors ................................................................................................................................................................................ 2255
Secure Communications via Cooperative Jamming in Two-Hop Relay Systems ................................................................. 2260
Secure Communications via Cooperative Jamming in Two-Hop Relay Systems ................................................................. 2260
Incremental Cooperative Relaying in Time-Correlated Rayleigh Fading Channels ............................................................. 2265
Incremental Cooperative Relaying in Time-Correlated Rayleigh Fading Channels ............................................................. 2265
A Useful Integral for Wireless Communication Theory and Its Application in Amplify-And-Forward MultiHop .............. 2270
A Useful Integral for Wireless Communication Theory and Its Application in Amplify-And-Forward MultiHop .............. 2270
Threshold-Based Frame Error Rate Analysis of Incremental Hybrid Relay Selection Scheme .................................................. 2275
Threshold-Based Frame Error Rate Analysis of Incremental Hybrid Relay Selection Scheme .................................................. 2275
Dynamic Feedback Allocation Algorithms for Interference Management in MIMO Uplink ....................................................... 2280
Dynamic Feedback Allocation Algorithms for Interference Management in MIMO Uplink ....................................................... 2280
Quasi-MMSE/ZF Based Limited Feedback Schemes for MU-MIMO Precoding ................................................................. 2285
Quasi-MMSE/ZF Based Limited Feedback Schemes for MU-MIMO Precoding ................................................................. 2285
A Feedback Update Control Scheme for Limited Feedback Multiple Antennas Systems ....................................................... 2291
A Feedback Update Control Scheme for Limited Feedback Multiple Antennas Systems ....................................................... 2291
Using Quantized Feedback to Cancel Interference in Multiple Access Channels ................................................................. 2296
Using Quantized Feedback to Cancel Interference in Multiple Access Channels ................................................................. 2296
Distributed Energy Efficient Spectrum Sharing Strategy Selection with Limited Feedback in MIMO Interference 
Zhou Sha, Jia-Liang Lu, Xu Li, Min-You Wu

Game-Theoretic Resource Allocation for Two-Hop Interference Channels
Yi Shi, Khaled B. Letaief, Rании B. Mahlik

Relay-Induced Error Propagation Reduction for Decode-and-Forward Cooperative Communications
Dandan Liang, Soon Xin Ng, Lajos Hanzo

Optimal Sum Rate of the MIMO Relay Communication System
Peter He, Lian Zhao, Zaiyi Luo

Average Spectral Efficiency of Opportunistic QRD-Based Cyclic Prefixed Single-Carrier Cooperative Diversity
Kyeong Jin Kim, Theodoros A. Tsiftsis, George K. Karagiannidis

Systems with Power Allocation
Yong Jun Chang, Mary Ann Ingram

Chemical Reaction Optimization for Cognitive Radio Spectrum Allocation
Peter M. Raydich, Mohamed-Slim Alouini

Throughput Optimization in Cognitive Random Wireless Ad hoc Networks
AliReza Babaei, Bijan Jabbari

Subchannel-Sharing Based Distributed Optimization of Ad-Hoc Cognitive Radio Network
Yao Ma, Dong In Kim

On Amplify-and-Forward Relay Networks with Multiple Source-Destination Pairs
Yupeng Liu, Athina P. Petropulu

Performance Analysis of Power-Efficient Adaptive Interference Cancelation in Fading Channels
Rafiea M. Radaydeh, Mohamed-Slim Alouini

Iterative Primal-Dual Scaled Gradient Algorithm with Dynamic Scaling Matrices for Solving Distributive NUM over Time-Varying Fading Channels
Yong Cheng, Vincent K. N. Lau

Adaptive M-QAM Systems with Diversity in Correlated Nakagami-m Fading and Shadowing
George C. Alexandropoulos, Andrea Conti, P. Takis Mathiopoulos

Cooperative Systems for the Fading Channel with Adaptive Modulation and Incremental Encoding
Filip Babich

A Novel TDS-FDMA Scheme for Multi-User Uplink Scenarios
Linglong Dai, Zhaoceng Wang, Jun Wang, Zixing Yang

Distributed Adaptive Subchannel and Power Allocation for Downlink OFDMA with Inter-Cell Interference Coordination
Sijian Liu, Hongxiang Li, Benjamin O. Braaten

Robust Pilot Designs for Consistent Frequency Offset Estimation in OFDM Systems
Kibom Lee, Inkyu Lee

Robust Synchronization for 3GPP LTE System
Wen Xu, Konstantinos Mantalakis

An Energy Efficient Channel Assignment and Routing Algorithm for Multi-Radio Wireless Mesh Networks
Stefano Avallone

Lightweight Routing with QoS Support in Wireless Sensor and Actor Networks
Mustafà Ihsun Abbas, Damla Turgut

A Cross-Layer and Adaptive Scheme for Balancing Performance and Security on WMN Data Routing
Helber Silva, Raimir Holanda, Michele Nogueira, Aldri Santos

Reducing Routing Loops under Dynamic Metrics in Wireless Mesh Networks
Takaya Yoshitaka

Performance of IEEE 802.11 RTS/CTS with Finite Buffer and Load in Imperfect Channels: Modeling and Analysis
Ahed Alshamyour, Anfaj Algarwal

Delay Analysis for a Reliable Message Delivery in Sparse Vehicular Ad Hoc Networks
Atef Abderrabou, Ben Liang, Weihua Zhuang

Modeling and Throughput Analysis for X-MAC with a Finite Queue Capacity
Oo Yang, Wendi B. Heinzelman

Joint UKF and MMSE Channel Estimation for Uplink 2-Dimensional Block Spread MC-CDMA with Cyclic Delay
WeiXiao Meng, Xi Chen, Qiyue Yu, Zhongzhao Zhang

Design Guidelines for a Network Architecture Integrating VANET with 3G & Beyond Networks
Zhaowei Zeng, Abileneh Benslimane

A Tolerant Context-Aware Driver Assistance System for VANETs-Based Smart Cars
Ibn-Han Bae, Stephan Olsaria

Impact of Mobility on VANETs' Safety Applications
Khaled Abdel Hafez, Tian Zhao, Zaiyi Luo, Bobby Ngok-Wah Ma

An Anti-Detection Moving Strategy for Mobile Sink
Zhou Sha, Jia-Liang Lu, Xu Li, Min-You Wu
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimized Transmission Scheme for Communication Reliability in Wireless Sensor Networks</td>
<td>2995</td>
</tr>
<tr>
<td>On the Coexistence of Uncoordinated Ad-Hoc Networks</td>
<td>3000</td>
</tr>
<tr>
<td>CFP: Integration of Fountain Codes and Optimal Probabilistic Forwarding in DTNs</td>
<td>3005</td>
</tr>
<tr>
<td>Compressive Data Persistence in Large-Scale Wireless Sensor Networks</td>
<td>3010</td>
</tr>
<tr>
<td>Empirical Modeling and Estimation of End-to-End VoIP Delay over Mobile Multi-Hop Wireless Networks</td>
<td>3015</td>
</tr>
<tr>
<td>Network Tomography via Compressed Sensing</td>
<td>3021</td>
</tr>
<tr>
<td>Large System Performance of Interference Alignment in Single-Beam MIMO Networks</td>
<td>3026</td>
</tr>
<tr>
<td>Downlink Interference Alignment</td>
<td>3032</td>
</tr>
<tr>
<td>A General Closed-Form Solution to Achieve Interference Alignment along Spatial Domain</td>
<td>3037</td>
</tr>
<tr>
<td>Interference Alignment as a Rank Constrained Rank Minimization</td>
<td>3042</td>
</tr>
<tr>
<td>Protocol Coding for Two-Way Communications with Half-Duplex Constraints</td>
<td>3048</td>
</tr>
<tr>
<td>Contention Resolution Diversity Slotted ALOHA with Variable Rate Burst Repetitions</td>
<td>3053</td>
</tr>
<tr>
<td>The Impact of Limited Information on Proportional Fair Scheduling in Wireless Networks</td>
<td>3064</td>
</tr>
<tr>
<td>Iterative Porte-Water-Filling for Weighted Sum-Rate Maximization in iTrees Networks</td>
<td>3069</td>
</tr>
<tr>
<td>On Greedy Methods for EXIT Chart Based Transmission Power Allocation</td>
<td>3074</td>
</tr>
<tr>
<td>An Energy-Efficient Bit Allocation Scheme in Wireless Sensor Networks</td>
<td>3080</td>
</tr>
<tr>
<td>Dynamic Spectrum Management for Upstream Mixtures of Vectored &amp; Non-Vectored DSL</td>
<td>3085</td>
</tr>
<tr>
<td>Coordinated Packet Transmission in Random Wireless Networks</td>
<td>3091</td>
</tr>
<tr>
<td>When Does the Wyner Model Accurately Describe an Uplink Cellular Network?</td>
<td>3096</td>
</tr>
<tr>
<td>OCDMA Code Design for BER and Data Rate Differentiation in Beat Noise Corrupted Systems</td>
<td>3101</td>
</tr>
<tr>
<td>Channel Capacity of OFDM Systems with Timing Jitter</td>
<td>3106</td>
</tr>
<tr>
<td>Routing and Spectrum Allocation in OFDM-Based Optical Networks with Elastic Bandwidth Allocation</td>
<td>3111</td>
</tr>
<tr>
<td>OCDMA Code Utilization Increase: Capacity and Spectral Efficiency Enrichment</td>
<td>3117</td>
</tr>
<tr>
<td>Cloud Computing over Metropolitan Area WDM Networks: The Light-Trails Approach</td>
<td>3122</td>
</tr>
<tr>
<td>Load Balancing for Holding-Time-Aware Dynamic Traffic Grooming</td>
<td>3128</td>
</tr>
<tr>
<td>Performance Evaluation of Node Architectures with Color and Direction Constraints in WDM Networks</td>
<td>3133</td>
</tr>
<tr>
<td>A Hybrid Protection/Restoration Scheme for Two-Link Failure in WDM Mesh Networks</td>
<td>3139</td>
</tr>
<tr>
<td>Column Generation for Dimensioning Resilient Optical Grid Networks with Relocation</td>
<td>3144</td>
</tr>
<tr>
<td>Routing and Scheduling in Distributed Advance Reservation Networks</td>
<td>3150</td>
</tr>
<tr>
<td>A Dual-Hop Amplify-and-Forward MIMO Cooperative Beamformer in Distributed Wireless Sensor Networks</td>
<td>3156</td>
</tr>
<tr>
<td>A New Synchronization Scheme for OFDM-Based Cooperative Relay Systems</td>
<td>3161</td>
</tr>
<tr>
<td>Cooperative Spectrum Sensing and Locationing: A Sparse Bayesian Learning Approach</td>
<td>3166</td>
</tr>
<tr>
<td>Iterative Approach to the Indirect Learning Architecture for Baseband Digital Predistortion</td>
<td>3171</td>
</tr>
<tr>
<td>Title</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Statistical Analysis of MIMO Beamforming with Co-Channel MIMO Interferers Under Rayleigh Fading</td>
<td>3176</td>
</tr>
<tr>
<td>Joint Channel Estimation and Data Detection for MIMO-OFDM Two-Way Relay Networks</td>
<td>3182</td>
</tr>
<tr>
<td>Getting Closer to MIMO Capacity with Non-Binary Codes and Spatial Multiplexing</td>
<td>3187</td>
</tr>
<tr>
<td>Transmit Antenna Selection with Linear Preceding in MIMO Multiuser Systems</td>
<td>3192</td>
</tr>
<tr>
<td>Strategyproof Wireless Spectrum Auctions with Interference</td>
<td>3197</td>
</tr>
<tr>
<td>Spectrum Trading in Cognitive Radio Network: An Agent-Based Model under Demand Uncertainty</td>
<td>3202</td>
</tr>
<tr>
<td>Backward-Compatible Dynamic Spectrum Leasing for 802.11-Based Wireless Networks</td>
<td>3207</td>
</tr>
<tr>
<td>A Novel Power Saving Strategy for Greening IEEE 802.11 Based Wireless Networks</td>
<td>3219</td>
</tr>
<tr>
<td>Tradeoff Issues for CCH/SCH Duty Cycle for IEEE 802.11p Single Channel Devices</td>
<td>3224</td>
</tr>
<tr>
<td>gama-TBSC: Time-Bound Signaling Control with gama-Percent Soft Guarantee in IEEE 802.11 Wireless LANs</td>
<td>3230</td>
</tr>
<tr>
<td>802.11 User Anonymization</td>
<td>3236</td>
</tr>
<tr>
<td>Cost-Effective Topology Design Problem in Time-Evolving Delay-Tolerant Networks</td>
<td>3241</td>
</tr>
<tr>
<td>Latency Analysis for Throughput and Delay Based Message Dissemination</td>
<td>3246</td>
</tr>
<tr>
<td>Coalition Formation Games for Improving Data Delivery in Delay Tolerant Networks</td>
<td>3251</td>
</tr>
<tr>
<td>Multicasting in Delay Tolerant Networks: Delegation Forwarding</td>
<td>3256</td>
</tr>
<tr>
<td>Improving Channel Utilization by Exploiting Partially Overlapping Channels in Wireless Ad Hoc Networks</td>
<td>3261</td>
</tr>
<tr>
<td>A Cross-Layer Analytical Model of End-to-End Delay Performance for Wireless Multi-Hop Environments</td>
<td>3266</td>
</tr>
<tr>
<td>Cross-Layer Optimization of Wireless Networks with Extended Transmission Rights</td>
<td>3272</td>
</tr>
<tr>
<td>Optimizing the WiMedia Frame Structure for Home Networking Applications</td>
<td>3277</td>
</tr>
<tr>
<td>A Cross-Layer Optimization for a LP-Based Multi-Reader Coordination in RFID Systems</td>
<td>3282</td>
</tr>
<tr>
<td>RF Concurrency Performance Study for Integrated WiFi Radio</td>
<td>3287</td>
</tr>
<tr>
<td>Toward Improving Path Selection in Tor</td>
<td>3292</td>
</tr>
<tr>
<td>Anonymous Certification Services</td>
<td>3298</td>
</tr>
<tr>
<td>Selective Cross Correlation in Passive Timing Analysis Attacks against Low-Latency Mixes</td>
<td>3304</td>
</tr>
<tr>
<td>Statistical Framework for Source Anonymity in Sensor Networks</td>
<td>3309</td>
</tr>
<tr>
<td>A New Hybrid Network Traffic Prediction Method</td>
<td>3315</td>
</tr>
<tr>
<td>A Channel Switching Scheme for IPTV Systems</td>
<td>3320</td>
</tr>
<tr>
<td>Inductive Routing System Based on QoS Bandwidth Optimization</td>
<td>3326</td>
</tr>
<tr>
<td>Multiple Description Coding with Feedback Based Network Compression</td>
<td>3331</td>
</tr>
<tr>
<td>A Trading System for Fairly Scheduling Fixed-Sized Delay Tolerant Jobs at a Shared Link</td>
<td>3337</td>
</tr>
<tr>
<td>Broadcast Traffic Queueing in OFDMA Systems for Spectrum Efficiency and Improved QoS Provisioning</td>
<td>3342</td>
</tr>
<tr>
<td>Distributed Interference Management and Scheduling in LTE-A Femto Networks</td>
<td>3348</td>
</tr>
<tr>
<td>Performance Bounds of Opportunistic Scheduling in Wireless Networks</td>
<td>3353</td>
</tr>
<tr>
<td>Admission Control and Channel Allocation for Supporting Real-Time Applications in Cognitive Radio Networks</td>
<td>3358</td>
</tr>
</tbody>
</table>
Admission Control and Packet Scheduling in a Cognitive Radio Network with Spectrum Underlay ............................................................. 3364
Opportunistic Spectrum Sharing Based on Exploiting ARQ Retransmission in Cognitive Radio Networks ...................................................... 3370
James C. F. Li, Wei Zhang, Aria Nosratinia, Jinliang Yuan
Phase Transition Diagram for Underlay Heterogeneous Cognitive Radio Networks .................................................................................. 3375
Wong Chun Ao, Shin-Ming Cheng, Kwang-Cheng Chen
A New Bandwidth Allocation Algorithm for EPON-WiMAX Hybrid Access Networks ................................................................. 3381
Abdou Ahmed, Abdullah Shami
Resource Allocation and Performance Study for LTE Networks Integrated with Femtocells ............................................................ 3387
Tian Lan, Kaustubh Sinkar, Latha Kant, Kenneth Kerpez
Energy Efficient Spectrum Allocation for Green Radio in Two-Tier Cellular Networks ............................................................... 3393
Wenchi Cheng, Hailin Zhang, Liquiang Zhao, Yongzhao Li
Joint Rate Control and Spectrum Allocation under Packet Collision Constraint in Cognitive Radio Networks .................................. 3398
Nguyen H. Tran, Choong Seon Hong
Fractional Reuse Partitioning for MIMO Networks ............................................................................................................................ 3403
Andrew Dotzer, Wolfgang Utschick, Guido Dietl
A Tabu Search Scheduling Algorithm for MIMO CDMA Systems ............................................................................................................ 3408
Elmahdi Driouch, Wessam Ajab, Mohamed Gaha
Field Trial Results on Different Uplink Coordinated Multi-Point (CoMP) Concepts in Cellular Systems ........................................... 3413
Patrick Marsch, Michael Griefer, Gerhard Fettweis
Distribution of the Demmel Condition Number of Complex Wishart Matrices .................................................................................. 3419
Caijun Zhong, Matthew R. McKay, Tharm Ratnarajah, Kai-Kit Wong
Performance Comparison of Energy-Efficient Power Control for CDMA Code Acquisition and Detection ..................................................... 3424
Giacomo Rucci, Marco Lusine
Cross-Polarization Discrimination in Vehicle-to-Vehicle Channels: Geometry-Based Statistical Modeling ........................................ 3429
Seok-Chat Kwon, Gordon L. Stuber
Non-CO Periodical-Pilot-Assisted Tracking Method for Practical High-Rate DS-UWB Systems ......................................................... 3434
Zhenyu Xiao, Jiapi Zhang, Depeng Jin, Ning Ge, Ligezwang Zeng
Towards Efficient, Stable, and Fair Random Access Networks: A Conjectural Equilibrium Approach .................................................... 3440
Yi Su, Mihaela Van Der Schaar
Relay Selection with Physical-Layer Network Coding .......................................................................................................................... 3446
Minchul Ju, Il-Min Kim
Secret Key Agreement Based on Radio Propagation Characteristics in Two-Way Relaying Systems ...................................................... 3451
Takayuki Shimizu, Hisato Iwai, Hidetsugu Satouko, Arqayanswami Pauarlaj
Mitigation of Forwarding Misbehaviors in Multiple Access Networks with Network Coding .............................................................. 3457
Sang Wul Kim
Rotating Decode-and-Foward for Two Pairs of Two-Way Communications ......................................................................................... 3462
Yuan-Pu Cen Lin, Meiyao Tso
Multiple Description Coding-Based Optimal Resource Allocation for OFDMA Multicast Service ............................................................. 3467
Yao Ma, Khaled Letaief, Zhenguang Wang, Ross Murch, Zhiqiang Wu
Rank Constrained Schur-Convex Optimization with Multiple Trace/Log-Det Constraints ............................................................ 3472
Hao Yu, Vincent K. N. Lau
Passively Controllable Smart Antennas .................................................................................................................................................. 3477
Javaad Lavar, Aydin Babakhani, Ali Hajimiri, John C. Doyle
Throughout-Efficient Rateless Coding with Packet Length Optimization for Practical Wireless Communication Systems .................. 3483
Xijun Wang, Wei Chen, Zhiqiang Cao
Approximation of Log-Likelihood Ratio for Wireless Channels Based on Taylor Series ........................................................................ 3488
Reza Asvadi, Amir H. Baniasheshemi, Mahmoud Ahmadian-Attari
Secrecy Capacity with Leakage Constraints in Fading Channels .............................................................................................................. 3493
Zhi Chen, Pangyi Fan, Depeng Wu, K. R. Letaief
Second-Order Properties for Wireless Cooperative Systems with Rayleigh Fading ........................................................................ 3498
Yuangnan Luo, Runan Zhang, Lin Cai
Novel Switching Schemes for Dual S+N Selection Diversity Combining .......................................................................................... 3503
Norman C. Beaulieu, Ramin Babaei
Cooperative Relaying Using OFDM in the Presence of Frequency Offsets ............................................................................................. 3509
Satya Prakash Ponnaluri, Babak Azimi-Sadjadi, Daniel McCarthy, Paul J. Olesi
Filter-and-Forward Distributed Beamforming for Two-Way Relay Networks with Frequency Selective Channels .................................. 3515
Haibiao Chen, Alex B. Gershman, Shahram Shabbeerzad
Transmission Schemes for Two-User Linear Multi-Access Relay Networks ..................................................................................................... 3520
Liangbin Li, Yindi Jing, Hamid Jafarkhani
Outage Priority Based Relay Fairness in Opportunistic Cooperation .................................................................................................... 3525
Yubo Li, Qinye Yin, Junsong Wang, Bin Li
Uplink Cell Selection for Cooperative Multi-Cell Networks with Hybrid ARQ ..................................................................................... 3530
Davide Zennaro, Stefano Tomasin, Lorenzo Visionetta
Cooperative Multi-Antenna Multicasting for Wireless Networks ........................................................................................................... 3535
Tian Lan, Kaustubh Sinkar, Latha Kant, Kenneth Kerpez
Improving the Energy Balance of Field-Based Routing in Wireless Sensor Networks ............................................................. 3540
Gece Trajcevski, Oliivi Ghiha, Peter Scheuermann, Marco Zuniga, Rene Schubotz, Manfred Hauswirth
Modelling and Performance Evaluation of a Translucent OBS Network Architecture .................................................................3725
A Novel Multilevel Coded Modulation Scheme for Fiber Optical Channel with Nonlinear Phase Noise ...........................................3731
Lafolaiah Bergi, Erik Aareg, Pontus Johansson, Magnus Karlsson
Phase Noise Sensitivity and Compensation Techniques in Long-Haul Coherent Optical Links ..................................................3737
Giulio Colavolpe, Tommaso Foggi, Enrico Forestieri, Marco Secondini
Optical Wireless Communications with Adaptive Subcarrier PSK Intensity Modulation ..............................................................3743
Nestor D. Chatzidiamantis, Athanasios S. Lioumpas, George K. Karagiannidis, Shlomi Arnon
On the Clipping Noise in an ACO-OFDM Optical Wireless Communication System ...............................................................3749
Svilen Dimitrov, Harald Haas
Fast Maximum-Likelihood Decoding of 4X4 Full-Diversity Quasi-Orthogonal STBCs with QAM Signals ........................................3754
Sanipand Kandu, Weifeng Su, Dimitris A. Pados, Michael J. Medley
List Sphere Decoding with a Probabilistic Radius Tightening ..................................................................................................................3759
Jaeseok Lee, Byonghyo Shim, Insung Kang
Robust Fixed Complexity Sphere Decoder ..................................................................................................................................................3764
Yuehua Ding, Yide Wang, Jean-Francois Durrus
An Improvement on the Soft Reliability-Based Iterative Majority-Logic Decoding Algorithm for LDPC Codes ..........................3769
T. M. N. Ngatche, Attahiru S. Alfa, Jun Cai
Space-Time Shift Keying: A Unified MIMO Architecture ..........................................................................................................................3774
S. Sugiuara, S. Chen, L. Hanzo
Generalized Singular Value Decomposition for Coordinated Beamforming in MIMO Systems ..........................................................3779
Dhamtii Senaratne, Chinthi Tellambura
Design of Amplify and Forward MIMO Relay Networks with QoS Constraint ...........................................................................3785
Jafar Mohammadi, Feifei Gao, Yue Rong
Fast Handover Latency Analysis in Proxy Mobile IPv6 .................................................................................................................................3790
Mun-Suk Kim, Sodyoung Lee, David Cypher, Nada Golmie
PMIPv6-HC: Handover Mechanism for Reducing Handover Delay and Packet Loss in NGWN ......................................................3795
Linoa A. Magagula, H. Anthony Chan, Olabisi E. Falowo
Performance Comparison between MIPv6 and SEMO6 .............................................................................................................................3800
Md Sazzadzul Rahman, Mohammad Atiquzzaman, Wesley Eddy, William Ivancic
Performance Evaluation of Network Mobility Handover over Future Aeronautical Data Link ........................................................3805
Serkan Ayaz, Felix Hoffmann, Christoph Sommer, Reinhard German, Falko Dressler
Counteracting Wireless Congestion in Data Distribution with Adaptive Batching Techniques ....................................................3811
Mario Fanelli, Luca Foschini, Antonio Corradi, Azzedine Boukerche
Hybrid Window and Rate Based Congestion Control for Delay Sensitive Applications ..............................................................................3816
Sanjeev Mehrotra, Jin Li, Sudipta Sengupta, Manish Jain, Sayandeep Sen
Sliding Mode Based Joint Congestion Control and Scheduling in Multi-Hop Ad Hoc Networks with Multi-Class Services ................................................3821
Zongrui Dong, Dapeng Wu
TCP Convergence Layer (TCPCL)-Based DTN over Cislunar Channels in Presence of Long Link Disruption .......................................3826
Buhai Wang, Xuan Wu, Linlei Zhou, Jia Hou
A QoS-Aware Dynamic Bandwidth Allocation Algorithm for Base Stations in IEEE 802.16j-Based Vehicular Networks ..................3831
Rdong Fei, Kun Yang, Shumao Ou, Xueqi Cheng
Mobility-Aware Call Admission Control Algorithm in Vehicular WiFi Networks .................................................................................3837
Younghwan Kim, Sangheon Park, Wonjung Lee
An Efficient Hybrid HIP-PMIPv6 Scheme for Seamless Internet Access in Urban Vehicular Scenarios ...........................................3842
Sandra Csepedes, Xiaomin Shen
A Novel Network Mobility Management Scheme for Vehicular Networks ......................................................................................3847
Zhenxia Zhang, Azzedine Boukerche, Richard W. Pazzi
Performance Analysis of Channel Contention in Wireless Ad Hoc Networks: A Stochastic Game Nets Approach ..........................3852
Jianxiang Wai, Liang-Li Lin, Xue Chen, Kun Meng, Yuanchao Wang
Estimating the Number of Nodes in a Mobile Wireless Network .........................................................................................................3857
Shiping Chen
Robust and Secure Secret Sharing in Wireless Networks with Convolutional Network Coding ........................................................3862
Joyce Liang, C.-C. Jay Kuo
Performance Analysis of Doppler Diversity Based on Sectorised Antenna in High-Speed Railway Communication ..........................3867
Cheng Tao, Liu Liu, Jiuhai Qiu, Huaqing Zhang, Chengshu Li
Wireless Data Center with Millimeter Wave Network ...............................................................................................................................3872
Huyen varshini, Navin Thomas, Seong-Jong Ryu, Bhashkar Banerjee, Ravi Prakash
YACA: Yet Another Cluster-Based Architecture for Network Intrusion Prevention ......................................................................3878
Fei He, Yuxuan Qi, Yibo Xue, Jun Li
Independent Parallel Compact Finite Automatons for Accelerating Multi-String Matching ...........................................................3883
Yi Tang, Junchen Jiang, Xiaofei Wang, Bin Liu, Yang Xu
Towards High-Performance Pattern Matching on Multi-Core Network Processing Platforms ..........................................................3888
Yuxuan Qi, Zongrui Ding, Yi Tang, Yibo Xue, Jun Li
A Real Implementation of DPI in 3G Network ........................................................................................................................................3893
Xiaoming Lu, Weihua Cao, Xusheng Huang, Feiyi Huang, Liwen He, Wenhong Yang, Shaobin Wang, Xiaotong Zhang, Hongsong Chen
A Novel Construction of 2-Group Decodable 4X4 Space-Time Block Codes .......................................................... 4254

Amr Ismail, Jocelyn Fiorina, Hilmet Sari

Optical Communication over Atmospheric Turbulence with Limited Channel State Information at the Transmitter ........................................................................................................... 4259

Andrew Puryear, Vincent W. S. Chan

Spectrally Efficient 60-GHz xy-MIMO Data Transport over a Radio-Over-Fiber System for Gigabit Wireless Local Area Networks ....................................................................................... 4265

Shu-Hao Fan, Hung-Chang Chien, Arshad Chowdhury, Gee-Kang Chang

Performance of Coherent BPSK Systems Using Phase Compensation and Diversity Techniques .......................... 4269

Lizzi Zuo, Yongzhe Rui, Anhong Dang, Hong Guo

Mobile Multi-Gigabit Spot-Diffusing Optical Wireless System Employing Beam Angle and Power Adaptation and Imaging Reception .............................................................................. 4274

Faud A. Alsadi, Jaafar M. H. Elmirgani

Localization of Wireless Sensors via Nuclear Norm for Rank Minimization ......................................................... 4280

Chen Feng, Shadollah Valaei, Wain S. Anthea Au, Zhenhai Tan

Estimation Feedback and Bandwidth Allocation with the Type-Based Multiple-Access in Wireless Sensor Networks ........................................................................................................................................ 4285

Xin Wang, Chenyang Yang

Topology-Assisted Techniques to Relay Selection for Homogeneously Distributed Wireless Sensor Networks .................................................................................................................. 4291

Farrokh Etezadi, Keyvan Zarifi, Ali Ghreyn, Sofiene Affes

A Hybrid Framework for Radio Localization in Broadband Wireless Systems ......................................................... 4297

Jun Chen, Ali Abedi

A Hybrid Codebook Design Algorithm for MIMO Amplify-and-Forward Relaying System with Power Allocation and Predecoding ................................................................................ 4303

Yuan Luo, Lihua Li, Zhibin Liu

Maximum Sum-Rate Interference Alignment Algorithms for MIMO Channels ..................................................... 4308

Ignacio Santamaria, Oscar Gonzalez, Robert W. Heath Jr., Steven W. Peters

Non-Regenerative Multi-Hop MIMO Relays Using MMSE-DFE Technique ................................................................. 4314

Yue Rong

Asymptotic Capacity and Predecoding Designs for Correlated Multi-Hop MIMO Channels ................................. 4319

Pedro B. F. Duarte, Zubair Md. Fadlullah, Kazuo Hashimoto, Nei Kato

Interference-Aware Robust Wireless Mesh Network Design .................................................................................. 4329

Furah Kandeh, Wei Yu Zhanq, Yashaswi Singh, Juan Li

Cost-Efficient Wireless Mobile Backhaul Topologies: An Analytical Study ......................................................... 4334

Fang-Chun Kao, Frank A. Zdarsky, Johannes Lessmann, Stefan Schmid

Scalable Publish/Subscribe Service in Wireless Mesh Networks ........................................................................ 4339

Juan Li, Wei Yu Zhanq, Xiaojian Xu

Queue-Stability-Based Transmission Power Control in Wireless Multihop Networks ................................................ 4344

Gustavo Vejarano, Janise McNair

"Locking" Dynamics and Mitigation Schemes in Distributed Power Control for Wireless Networks ....................... 4349

Jeffrey Mouzner, Nicholas Bambos

globally Optimal Distributed Power Control for Nonconcave Utility Maximization ................................................ 4355

Qiang Lin, Yan Jiong Zhang, Zhiqiang Chiou

Energy Savings through Dynamic Base Station Switching in Cellular Wireless Access Networks ...................... 4361

Eunsung Oh, Bhaskar Krishnamachari

Mixed Time-Scale Generalized Fair Scheduling for Amplify-and-Forward Relay Networks .............................................. 4366

Alireeze Sharifian, Petar Djukic, Halim Yanikomeroglu, Jietao Zhang

Cooperative Relay in Cognitive Radio Networks: Decode-and-Forward or Amplify-and-Forward? ......................... 4371

Donglin Hu, Shiyen Mao

Energy Saving Performance Comparison of Coordinated Multi-Point Transmission and Wireless Relaying .............. 4376

Dongyu Cao, Sheng Zhou, Chao Zhang, Zhicheng Xiu

Stability and Performance Issues of a Relay Assisted Multiple Access Scheme .................................................. 4381

Nikolaos Pappas, Apostolis Traganitis, Anthony Ephremides

HMC: A Novel Mechanism for Identifying Encrypted P2P Thunder Traffic .............................................................. 4386

Chenglong Li, Yibo Xue, Yingfei Dong, Dongsheng Wang

A Graph Similarity-Based Approach to Security Event Analysis Using Correlation-Based Techniques .................. 4391

Qiushi Wu, Yi Gu, Xiaohui Cui, Feimei Moku, Yanmin Lin

An Novel Hybrid Method for Effectively Classifying Encrypted Traffic ............................................................. 4396

Guang-Lu Sun, Yibo Xue, Yingfei Dong, Dongsheng Wang, Chenglong Li

A Distributed Public Key Caching Scheme in Large Wireless Networks ................................................................. 4401

Yuan Kong, Jing Dang, Stephen R. Tate

Incremental Rate Control for H.264 Scalable Video Coding .................................................................................. 4406

Jin Yang, Yu Sun, Yimin Zhou, Shixun Sun

The Benefits of Network Coding in Distributed Caching in Large-Scale P2P-voD Systems ................................. 4411

Lizzi Zuo, Yongzhe Rui, Anhong Dang, Hong Guo

Priority Linear Coding Based Opportunistic Routing for Video Streaming in Ad Hoc Networks ....................... 4417

Zhi Li, Limin Sun, Xinyuan Zhou, Liqian Li
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Unequal Loss Protection and LT Coding for Layer-Coded Media Delivery</td>
<td>4422</td>
</tr>
<tr>
<td>Adaptive Multi-Code Chaos-Based CDMA with Unequal Error Protection Using Reduced Support Vector Machine</td>
<td>4427</td>
</tr>
<tr>
<td>An Analytical Model to Study the Packet Loss Burstiness over Wireless Channels</td>
<td>4432</td>
</tr>
<tr>
<td>An Exponential Model for Evaluating Error Performance of Turbo Codes</td>
<td>4437</td>
</tr>
<tr>
<td>Application Profile Based MIMO Link Adaptation in LTE System Networks</td>
<td>4442</td>
</tr>
<tr>
<td>Enhancing Handoff Performance by Introducing Ad Hoc Mode into Cellular Networks</td>
<td>4448</td>
</tr>
<tr>
<td>Optimization of the Use of Radio Resource of Radio-Over-Fiber Access Networks</td>
<td>4453</td>
</tr>
<tr>
<td>Traffic-Aware Connection Admission Control Scheme for Broadband Mobile Systems</td>
<td>4458</td>
</tr>
<tr>
<td>Reconsider Broadcast Packet Reception Rates in One-Dimensional MANETs</td>
<td>4463</td>
</tr>
<tr>
<td>On-Demand Multicast Routing in Cognitive Radio Mesh Networks</td>
<td>4469</td>
</tr>
<tr>
<td>Routing in Hybrid Mesh Networks of Cognitive and IEEE 802.11 Radios</td>
<td>4474</td>
</tr>
<tr>
<td>Cognitively Multi-Path Multi-Channel Routing Protocol for Mobile Ad-Hoc Networks</td>
<td>4479</td>
</tr>
<tr>
<td>Scalable Cognitive Routing Protocol for Mobile Ad-Hoc Networks</td>
<td>4485</td>
</tr>
<tr>
<td>Establishing Secure Virtual Trust Routing and Provisioning Domains for Future Internet</td>
<td>4491</td>
</tr>
<tr>
<td>An Implementation of Optimal Dynamic Load Balancing Based on Multipath IP Routing</td>
<td>4497</td>
</tr>
<tr>
<td>A Proposal for an XOR-Based Flat Routing Mechanism in Internet-Like Topologies</td>
<td>4502</td>
</tr>
<tr>
<td>Constant Fidelity Entanglement Flow in Quantum Communication Networks</td>
<td>4508</td>
</tr>
<tr>
<td>Geometry and Motion Based Positioning Algorithms for Mobile Tracking in NLOS Environments</td>
<td>4513</td>
</tr>
<tr>
<td>Surface Based Underwater Communications</td>
<td>4523</td>
</tr>
<tr>
<td>Analysis of Localization Accuracy in Wireless Networks in Presence of Uncertain Beacon Positions</td>
<td>4529</td>
</tr>
<tr>
<td>Capacity Achieving Modulations for the Peak-Power Limited Gaussian Channel</td>
<td>4534</td>
</tr>
<tr>
<td>Layered Adaptive Modulation and Coding for 4G Wireless Networks</td>
<td>4539</td>
</tr>
<tr>
<td>Robust Multiuser Precoder for Base Station Cooperative Transmission with Non-Ideal Channel Reciprocity</td>
<td>4545</td>
</tr>
<tr>
<td>An Exit-Chart Aided Design Procedure for Near-Capacity N-Component Parallel Concatenated Codes</td>
<td>4550</td>
</tr>
<tr>
<td>Opportunistic Subchannel Scheduling for OFDMA Networks with Network Coding at Relay Stations</td>
<td>4555</td>
</tr>
<tr>
<td>On Performance of Cooperative Multicast System with Wireless Network Coding</td>
<td>4560</td>
</tr>
<tr>
<td>Minimum Broadcast Decoding Delay for Generalized Instantly Decodable Network Coding</td>
<td>4566</td>
</tr>
<tr>
<td>Outage Performance of DF Network Coded (DFNC) Multi-User Cooperative Diversity in Orthogonal Uplink Channels</td>
<td>4571</td>
</tr>
<tr>
<td>Coordinated User Scheduling and Power Control for Weighted Sum Throughput Maximization of Multicell Network</td>
<td>4576</td>
</tr>
<tr>
<td>Integrated Power Controlled Adaptive Rate Link Scheduling in Wireless Mesh Networks</td>
<td>4582</td>
</tr>
<tr>
<td>On the Performance of Cooperative Diversity with Arbitrary Power Allocation</td>
<td>4587</td>
</tr>
<tr>
<td>Energy-Efficient Multi-Carrier Link Adaptation with Sum Rate-Dependent Circuit Power</td>
<td>4592</td>
</tr>
</tbody>
</table>
Blind Channel Equalization for Fast Moving Terminals in Prioritized Spatial Multiplexing MIMO Systems ................................................................. 4598
Queen Liu, Chang Wen Chen
Parallel-Filtering Based Equalization of OFDM over Doubly Selective Channels ................................................................. 4603
Guanghui Liu, Hongkang Li, Wei Chen, Mingzhen Wang, Lin Wang
Analog Equalization for Low Power 60 GHz Receivers in Block-Fading Channels with Estimation Errors ................................................................. 4608
Khurshed Hassan, Theodore S. Rappaport, Jeffrey G. Andrews
An Information-Guided Channel-Hopping Scheme for Block-Fading Channels with Estimation Errors ................................................................. 4613
Yui Tang, Nicholas Bonello, Sonia Atsa
Pulse Shapes that Outperform Traditional UWB Antenna/Waveform Combinations ................................................................. 4618
Mehrdad Meshkati, Mohammad Abrashi, Patrick Larochelle, Leslie A. Rusch
Performance Enhancement of Single Frequency Networks Using Randomized Transmit Phases ................................................................. 4623
Kiran M. Rege, Krishna Balachandran, Joseph H. Kang, Kemal Karakayali
Multi-Hop Localization Using Mobility (MLM) in Mixed LOS/NLOS Environments ................................................................. 4629
Tomoya Takenaka, Zafer Sahinoglu, Ghulam Bhatti, Jinyun Zhang, Hiroshi Minem, Tadanori Mizuno
Probabilistic Estimation of Location Error in Wireless Ad Hoc Networks ................................................................. 4635
Jeremy Gribben, Arjumum Boukerche
Collaborative Position Location for Wireless Networks using Iterative Parallel Projection Method ................................................................. 4640
Tao Ju, B. Michael Buehrer
Localized Energy Efficient Detection and Tracking of Dynamic Phenomena ................................................................. 4646
Ravi Tiwari, My T. Thai, Abdelsalam Helal
A Distributed Wake-Up Scheduling for Opportunistic Forwarding in Wireless Sensor Networks ................................................................. 4651
Chul-Ho Lee, Do Young Eun
A Distributed Algorithm for Finding Maximum Barrier Coverage in Wireless Sensor Networks ................................................................. 4656
Jun He, Hongchi Shi
Connectivity-Based Distance Estimation in Wireless Sensor Networks ................................................................. 4661
Baoqi Huang, Changbin Yu, Brian D. O. Anderson, Guangqiang Mao
Efficient Localized Protocols to Compute Connected Dominating Sets for Ad Hoc Networks ................................................................. 4666
Khalid Atiya A. Almahorg, Sagar Naik, Xiaomin Shen
CoZi: Basic Coding for Better Bandwidth Utilization in ZigBee Sensor Networks ................................................................. 4671
Ismail Salhi, Yacine Gaonni-Doudane, Stephane Lohier, Erwan Livolant
Capability and Fidelity of Mote-Class Wireless Sniffers ................................................................. 4677
Jordan Cote, Ring Wang, Wei Zeng, Zhijie Shi
Signature Maximization in Designing Wireless Binary Pyroelectric Sensors ................................................................. 4683
Miao Peng, Yang Xiao
A New Rate Control Technique for cdma2000 1xEV ................................................................. 4688
Aida Basvou, Walaa Hamouda, Amr Yousef
A Design of High-Rate Full-Diversity STBC with Low-Complexity PIC Group Decoding ................................................................. 4693
Wei Zhang, Yung Lin, Wei Zhong, Yi-Chih Lin
Asymptotically- Good, Multigroup ML- Decodable STBCs ................................................................. 4698
Lakshmi Prasad Natarajan, B. Sundar Rajan
Reduced ML-Decoding Complexity, Full-Rate STBCs for 2° Transmit Antenna Systems ................................................................. 4703
K. Pavan Srinath, B. Sundar Rajan
An Improved Number-Theoretic Method for Constructing Approximately Universal Codes ................................................................. 4708
Ming-Tang Chen, John M. Cioffi
Information-Theoretic Methods for the Design and Evaluation of Adaptive Protocols for Direct-Sequence Spread-Spectrum Transmissions ................................................................. 4713
Steven W. Boyd, Michael B. Pursley
Joint Signal-Labeling Optimization for Pragmatic Capacity under Peak-Power Constraint ................................................................. 4718
Farbod Kayhan, Guido Montorsi
Discrete Time Faster-Than-Nyquist Signalling ................................................................. 4723
Michael McGuire, Mihai Suma
Information Theoretic Optimal Broadband Matching for Communication Systems ................................................................. 4728
Navaneed S. Tatia, Brian L. Hughes
Dynamic Routing Optimization in WDM Networks ................................................................. 4734
J. Cricchiono, N. Ghanbi, J. Khoury, W. Shu, M. Y. Wu
Multi-Layer/Multi-Region Path Computation with Adaptation Capability Constraints ................................................................. 4739
Meral Shiraziouglu, Samuel Pierre
A Fuzzy Inter-Ring Route Control with PRNN Predictor Bridged Resilient Packet Rings ................................................................. 4744
Wen-Shiang Tang, Chung-Ju Chang
MultiPeriod Planning with Controlled Shortest Path Routing ................................................................. 4749
Clara Kronberger, Dominic A. Schupke, Jorg Eberspacher
Jointly Optimal Power Assignment for Multi-Source Multi-Destination Relay Networks ................................................................. 4755
Fuyu Chen, Weifeng Su, Stella N. Batalama, John D. Mattijas
Joint Power Control and Relay Matrix Design for Cooperative Communication Networks with Multiple Source-Destination Pairs ................................................................. 4760
Kevyaz Zarifi, Ali Gharayeb, Sofia Affer
Energy Efficient MISO Collaborative Communication System in AWGN and Rayleigh Fading Channel ................................................................. 4766
Syed Huanain A. Naqvi, Stevan M. Berber, Zoran Salcic
Power Minimization in Parallel Vector Broadcast Channels with Zero-Forcing Beamforming ................................................................. 4771
Christoph Hellings, Michael Joham, Wolfgang Utschick
Frequency Synchronization for Multiuser MIMO-OFDM System Using Bayesian Approach ................................................................. 4776
Jianwen Chen, Jianwu Chen, Yik-Chung Wu

Suboptimal and Optimal MIMO-OFDM Iterative Detection Schemes .......................................................................................... 4782
Pei Xiao, Zhixun Lin, Wu Yin, Colin Cowan

Channel Code Aided Decision-Directed Channel Estimation for MIMO OFDM/SDMA Systems Based on the "Expectation-Conditional Maximization Either" Algorithm ......................................................... 4787
Jiankang Zhang, Lajos Hanzo, Xiaomin Mu

Optimal Resource Allocation for Video Delivery over MIMO OFDM Wireless Systems ........................................................................ 4792
Shengjie Zhao, Yi Zhang, Luoning Gai

Novel PMEPR Control Approach for 64- and 256-QAM Coded OFDM Systems .................................................................................. 4797
Scott C.-H. Huang, Hsiao-Chan Wu, John M. Cioffi

Multi-Resolution Bayesian Compressive Sensing for Cognitive Radio Primary User Detection ...................................................................... 4803
Steven Hong

Power Allocation for Distributed Turbo Product Codes (DTPC) ............................................................................................................. 4809
Exam A. Obiedat, Lei Cao

Competitive Downlink Beamforming Design in Multiuser Multicell Wireless Systems ........................................................................ 4815
Hassan Halabian, Ioannis Lambadaris, Chung-Horng Lung, Anand Srinivasan

Hardware Implementation of an Iterative Sampling Rate Converter for Wireless Communication ........................................................................ 4821
Michal Stala, Can Bilgin, Rakesh Gangarajujah, Joachim Neves Rodrigues

Enhancing the Network Sum-Rate without Sharing Channel State Information between Base Stations .......................................................... 4827
Ralf Bendlin, Yih-Fang Huang, Michel T. Ivrlac, Josef A. Nossek

CORAL: Spectrum Aware Admission Policy in Cognitive Radio Mesh Networks ................................................................................... 4832
Mario Kolberg, John F. Buford, Krishna K. Dhara, Venky Krishnaswamy, Xiaotao Wu

On Cognitive Network Channel Selection and the Impact on Transport Layer Performance ................................................................. 4838
Yao Liu, Bheemarjuna Reddy Tamma, B. S. Manoj, Ramesh Rao

Cognitive Network Inference through Bayesian Network Analysis ........................................................................................................... 4843
Giorgio Quer, Hemanth Meenakishundaram, Bheemarjuna Tamma, B. S. Manoj, Ramesh Rao, Michele Zorzi

Daniel Denkowski, Valentina Pavlovskia, Vladimir Atanasovski, Lilijana Gavrilovska

Impact of Coordination Delay on Distributed Scheduling in LTE-A Femtocell Networks ........................................................................ 4854
Ritesh Medan, Ashwin Sampath, Nagu Bhushan, An modo Khandekar, Jabbar Barran, Tingjiang Li

Pilot Power Minimization in HSDPA Femtocells ................................................................................................................................. 4859
Yalin Zhang, Yang Yang Li, Elvino S. Sousa, Qin Yu Zhang

Hierarchical Competition in Femtocell-Based Cellular Networks ............................................................................................................ 4864
Sudarshan Gurucharya, Dusit Niyato, Ekram Hossain, Dong In Kim

Cognition and Docition in OFDMA-Based Femtocell Networks ................................................................................................................. 4869
Ana Galindo-Serrano, Lorenzo Giupponi, Mischa Dohler

Building Global View with Log Files in a Distributed/Network System ................................................................................................. 4875
Sunqiang Yue, Yang Xiao

Piece Fingerprinting: Binding Content and Data Blocks Together in Peer-to-Peer Networks ....................................................................... 4880
Walter Wong, Mauricio F. Magalhaes, Justi Kangasharju

Fast Anomaly Detection for Large Data Centers ................................................................................................................................. 4886
Ang Li, Lin Gu, Kui Xu

Risk-Aware Response for Mitigating MANET Routing Attacks .............................................................................................................. 4892
Ziming Zhao, Hongxin Hu, Guo-Shan An, Huoyang Wu

Peer-Assisted Caching for Scalable Media Streaming in Wireless Backhaul Networks .................................................................................. 4898
Hazem Gomaa, Geoffrey G. Messier, Robert Davies, Carey Williamson

Adaptive Peer Caching for P2P Video-on-Demand Streaming ............................................................................................................... 4903
Jongtae Kim, Heesu Im, Saewoong Bahk

Exploring Locality of Reference in P2P VoD Systems ............................................................................................................................... 4908
Danqi Wang, Chai Kiat Yeow

Incentive-Driven Content Distribution in Wireless Multimedia Service Networks .................................................................................. 4914
Jianwen Chen, Jianwu Chen, Yik-Chung Wu

Lu-Chuan Kung, Jennifer Hou

An NGN-Based Cross-Domain Shared File System ................................................................................................................................. 4925
Marcus Q. Kahnen, Johannes Haussler, Aner Schulze, Harald Kormrayer, Federico Marmori, Matthias Kraus

Feature Interaction Analysis for Collaboration Spaces with Communication Endpoints ........................................................................ 4930
Steven Hong

BFilter - A XML Message Filtering and Matching Approach in Publish/Subscribe Systems ........................................................................ 4936
Liang Dai, Chung-Horng Lung, Shikharesh Majumdar

Reconsidering Social Networks for Enterprise Communication Services .................................................................................................. 4942
Krishna K. Dhara, Venkatesh Krishnaswamy, Taranjeet Singh

Distortion-Delay Tradeoff in Real-Time Wireless Video Scheduling ........................................................................................................ 4947
Liang Zhou, Joel Rodrigues, Athanasios V. Farsaloker

Cooperative Algorithm for the Global Planning Problem of UMTS Networks ....................................................................................... 4952
Shunyuan Liu, Marc-St-Hilaire

Dynamic Channel and Interface Management in Multi-Channel Multi-Interface Wireless Access Networks .................................................. 4957
Hassan Halabian, Ioannis Lambadaris, Chung-Horng Lung, Anand Srinivasan
Scheme for Estimating ADSL Link Capacity Based on Delay Measurements of Different Length Packets

A Novel Framework for Dynamic Utility-Based QoE Provisioning in Wireless Networks

G. Aristomenopolous, T. Kastrinogiannis, V. Kaldunis, G. Karantonis, S. Papavassiliou

Cognitive Radio Scheduling for Overwater Communications

Weiyi Zhang, Shi Bai, Yang Liu, Jian Tang

Dynamic Channel and Power Allocation in Cognitive Radio Networks Supporting Heterogeneous Services

Renchao Xie, Hong Jie, Pengbo Si, Yi Li

A Novel Signal Separation Algorithm for Wideband Spectrum Sensing in Cognitive Networks

Dan Liu, Chao Li, Jian Liu, Keping Long

Energy Detection Based Spectrum Sensing for Cognitive Radio: An Experimental Study

Kyungtae Kim, Yan Xing, Sampath Rangarajan

GreenCloud: A Packet-Level Simulator of Energy-Aware Cloud Computing Data Centers

Dmitry Kliuzovich, Pascal Bouvey, Yury Audevich, Samee Ullah Khan

A Genetic Algorithm for the Global Planning Problem of UMTS Networks

Shuai Liu, Marc St-Hilaire

The Quest for LEDBAT Fairness

Giovanna Carofiglio, Luca Muscariello, Dario Rossi, Silvio Valenti

On Fairness and Locality in P2P-TV through Large-Scale Measurement Experiment

Thomas Silverston, Olivier Fourmaux, Kave Salamatian, Kenjiro Cho

P2P Video-on-Demand: Steady State and Scalability

Samuli Aalto, Pasi Lassila, Niklas Raatikainen, Petri Saxelainen, Sasu Tarkoma

Using Hidden Markov Chains for Modeling P2P-TV Traffic

Yi Tan, Shaminik Sengupta, K. P. Subbalakshmi

A Class of Generalized Quasi-Cyclic LDPC Codes: High-Rate and Low-Complexity Encoder for Data Storage Devices

Yo Tam Van, Hajime Matsui, Seishi Mitu

Serial Turbo Coding Performance for Rectangular-Grain TDMR Models

La Pan, William E. Ryan, Roger Wood, Bane Vasic

LDPC Codes for Memory Systems with Scrubbing

Seungjuone Jeon, Euisuk Hwang, B. V. K. Vijaya Kumar, Michael K. Cheng

Flash Coding Scheme Based on Error-Correcting Codes

Qin Huang, Shu Lin, Khaled Abdel-Ghaffar

On the Capacity of Hybrid FSO/RF Links

Hassan Moradi, Maryam Falahpour, Hazem H. Refai, Peter G. Lopresti, Mohammed Atiquzzaman

Dynamic Bandwidth Allocation of Satellite/Terrestrial Integrated Mobile Communication System

Takaya Yamaizato, Tomohiro Aman, Masaaki Katayama

A Joint Multi-User Synchronization Method for SC-FMDA in Broadband Satellite Return Channel

S. Ronati, S. Cioni, A. Vanelli-Coralli, G. E. Correza, G. Gallinaro, A. Ginesi

A 3-D Channel Model for Distributed MIMO Satellite Systems

Xing Li, Youjuan Liu


Hasheng Li, Robert C. Qiu

Competitive Spectrum Trading in Dynamic Spectrum Access Markets: A Price War

Prashant Singh, K. P. Subbalakshmi

A Class of Three-User Multiple Access Cognitive Radio Channels: An Achievable Rate Region

K. G. Nagamnda, Shalinee Kishore

Performance of Opportunistic Spectrum OFDMA Network with Users of Different Priorities and Traffic Characteristics

Jihoon Park, Przemyslaw Pawelczak, Pat Gronlund, Danijela Cabric

Dynamic Spectrum Allocation Based on Interference Threshold Modeling

Chao Zou, Chuanxiao Cigan

Performance Analysis of Dynamic Spectrum Access Networks under Primary User Emulation Attacks

Z. Jin, S. Anand, K. P. Subbalakshmi

A Future Internet Architecture Based on De-Conflated Identities

Subbharthi Paul, Jinali Pan, Raj Jain

Transport Stratum Services in NGN: A SOA-Oriented Design

Giovanni Branca, Paolo Atenada, Luigi Atzori

Introducing Infocards in NGN to Enable User-Centric Identity Management

Patricia Arias Cabarcos, Rosa Sanchez Guerrero, Florentia Almenarez-Mendioz, Daniel Diaz-Sanchez, Andres Marin-Lopez

Platforms and Software Systems for an Autonomic Internet


Frequency Offset Estimation in I/Q Mismatched OFDM Receivers

Michele Moretti, Marco Moratti

Femtocell Access Control in the TDMA/OFDMA Uplink

Ping Xia, Vikram Chandrasekhar, Jeffrey G. Andrews

Zero-Forcing Based Decode-and-Forward Cooperative Relaying Scheme over Doubly Selective Fading Channels

Ho Van Khuong, Le-Ngoc Tho
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFDM Signal Sensing over Doubly-Selective Fading Channels</td>
<td>5142</td>
</tr>
<tr>
<td>Differentiated Pricing Scheme for Flow Control in Multiuser Access Networks</td>
<td>5147</td>
</tr>
<tr>
<td>Efficient Communications over Wireless Sensor Networks</td>
<td>5153</td>
</tr>
<tr>
<td>Fast Distributed Rate Control Algorithm with QoS Support in Ad Hoc Networks</td>
<td>5158</td>
</tr>
<tr>
<td>Limited Feedback Design for Block Diagonalization MIMO Broadcast Channels with User Scheduling</td>
<td>5163</td>
</tr>
<tr>
<td>Performance Analysis of User Selected Subband Channel Quality Indicator Feedback Scheme of LTE</td>
<td>5168</td>
</tr>
<tr>
<td>Performance Analysis of Scheduling in Decode-and-Forward Broadcast Channel with Limited-Feedback</td>
<td>5174</td>
</tr>
<tr>
<td>TDMA Achieves the Same Diversity Gain as Opportunistic Scheduling in Relay-Assisted Wireless Networks</td>
<td>5179</td>
</tr>
<tr>
<td>Throughput, Capacity, Handover and Latency Performance in a 3GPP LTE FDD Field Trial</td>
<td>5185</td>
</tr>
<tr>
<td>Multi-User Cooperation for Channel Selection in Cognitive Radio Networks: A Bayesian Approach</td>
<td>5191</td>
</tr>
<tr>
<td>Multi-Session Data Gathering with Compressive Sensing for Large-Scale Wireless Sensor Networks</td>
<td>5196</td>
</tr>
<tr>
<td>Fair and QoS-Oriented Spectrum Splitting in Macrocell-Femtocell Networks</td>
<td>5201</td>
</tr>
<tr>
<td>Collaborative Nonlinear Transceiver Optimization in Multi-Tier MIMO Cognitive Radio Networks with Deterministically Imperfect CSI</td>
<td>5207</td>
</tr>
<tr>
<td>Limited Feedback Schemes for Multiuser MIMO Downlink Transmission</td>
<td>5212</td>
</tr>
<tr>
<td>Rate Gap Analysis for Rate-Adaptive Antenna Selection and Beamforming Schemes</td>
<td>5217</td>
</tr>
<tr>
<td>A Comparison between Unitary and Non-Unitary Precoder Design for MIMO Channels with MMSE Detection and Limited Feedback</td>
<td>5222</td>
</tr>
<tr>
<td>Optimizing Receive Combining Vectors for Multiantenna Users in Multiuser MIMO Precoding</td>
<td>5228</td>
</tr>
<tr>
<td>Feedback Delay Effect on Dual-Hop MIMO AF Relaying with Antenna Selection</td>
<td>5233</td>
</tr>
<tr>
<td>A Hybrid Relative Distance Based Cluster Scheme for Energy Efficiency in Wireless Sensor Networks</td>
<td>5238</td>
</tr>
<tr>
<td>A Cluster-Head Selection and Update Algorithm for Ad Hoc Networks</td>
<td>5249</td>
</tr>
<tr>
<td>Topology Stability-Based Clustering for Wireless Mesh Networks</td>
<td>5254</td>
</tr>
<tr>
<td>Fair Energy Allocation in Wireless Sensor Networks: Theory and Practice</td>
<td>5259</td>
</tr>
<tr>
<td>Channel-Aware Energy Efficient Transmission Strategies for Large Wireless Sensor Networks</td>
<td>5265</td>
</tr>
<tr>
<td>SHIELD: Social Sensing and Help In Emergency using Mobile Devices</td>
<td>5280</td>
</tr>
<tr>
<td>Comparison between Preamble Sampling and Wake-Up Receivers in Wireless Sensor Networks</td>
<td>5285</td>
</tr>
<tr>
<td>Virtual Sensor for Mobile Sensor Data Cleaning</td>
<td>5290</td>
</tr>
<tr>
<td>A New Broadcast Protocol for Vehicular Ad Hoc Networks Safety Applications</td>
<td>5295</td>
</tr>
<tr>
<td>Unified Theoretical Expressions for the Average Error Rate of Selection Diversity with Arbitrary Coded and Uncoded Modulation in Slow Rayleigh Fading and Their Application to Analytical, Semi-Analytical and Simulation Performance Evaluation</td>
<td>5300</td>
</tr>
<tr>
<td>Complex Gaussian Ratio Distribution with Applications for Error Rate Calculation in Fading Channels with Imperfect CSI</td>
<td>5306</td>
</tr>
</tbody>
</table>

Robert J. Baxley, Brett T. Walkenhorst, Guillermo Acosta-Marum
Superanalysis of the Interference Effect on Adaptive Antenna Systems ..........................................................5311
Youngmin Jeong, Hyunsung Shin, Moe Z. Win

An Approximate Distribution of Instantaneous Power in Band-Limited PSK Signals ...........................................5316
Hideki Ochiai

Efficient Protection in Single-Domain Networks Using Network Coding ............................................................5321
István Barla, Franz Bambach, Dominic A. Schupke, Georg Carle

Stability of p-Cycles under Dynamic Traffic .......................................................................................................5326
Brigitte Jaumard, Ammar Memnani

1+N Protection in Polynomial Time: A Heuristic Approach ....................................................................................5332
Mirzaad Mohandespour, Ahmed E. Kamal

Circuit-Graph-Based Fault-Tolerant Routing for All-Optical WDM LANs ..............................................................5337
Daxiang Wang, Junise McNair

Frequency-Domain Oversampling for Zero-Padded OFDM in Underwater Acoustic Communications ..................5342
Zhaohui Wang, Shengli Zhou, Georgios B. Giannakis, Christian R. Berger, Jie Huang

Partial Data-Dependent Superimposed Training Based Iterative Channel Estimation for OFDM Systems over Doubly Selective Channels .........................................................................................................5347
Lojdan He, Shaodan Ma, Yi-Kang Wu, Tung-Sung Ng

Blind Estimation of Common Phase Error in OFDM and OFDMA ........................................................................5352
Gokul Sriharan, Teng Joon Lim

Outage Throughput Maximization for OFDMA Systems with Feedback Channel Capacity Constraints ..................5357
Chen Chen, Lin Bai, Bo Wu, Duc To, Jinho Choi

Adaptive Distributed Source Coding over Erasure Channels Using Particle-Based Belief Propagation ..................5362
Lijun Cui, Shuang Wang, Samuel Cheng

Dynamic Resource Allocation Based Partial Crosstalk Cancellation in DSL Networks ...........................................5367
Beier Li, Paschalis Tsiafundakis, Marc Moonen, Jochen Maes, Mamoun Guenach

Frame Synchronization Techniques for Non-Binary LDPC Codes over GF(q) .........................................................5372
Rodrigue Imad, Charly Poulliat, Sebastiaan Houcke

Automatic Gain Control for ADC-Limited Communication ..................................................................................5378
Fei Fei Sun, Jaspreeet Singh, Upamanyu Madhow

Robust General Rank Precoding Design for Amplify-and-Forward Relay Network ................................................5383
Dhimantra Poonamkoti, Feifei Gao, Liqiang Fan

Optimum Training Sequences for Data-Aided Synchronization ...........................................................................5388
Christopher Shaw, Michael Rice

OFDM Signal Type Recognition and Adaptability Effects in Cognitive Radio Networks ........................................5394
Anna Vizziello, Ian F. Akyildiz, Ramon Augusti, Lorenzo Favalli, Pietro Savazzi

Voice Capacity of Cognitive Radio Networks for Both Centralized and Distributed Channel Access Control ..........5399
Subodha Gunawardena, Weihua Zhuang

Channel Allocation for Smooth Video Delivery over Cognitive Radio Networks .......................................................5404
Sanyin He, Tuan H. Luan, Xuejun Shen

Yanjun Yao, Zhiyong Feng, Wei Li, Yi Qian

A Controlled Coalitional Game for Wireless Connection Sharing and Bandwidth Allocation in Mobile Social Networks ..................................................................................................................................5414
Dusit Niyato, Zhu Han, Walid Saad, Are Hjorungnes

Optimal Content Transmission Policy in Publish-Subscribe Mobile Social Networks .............................................5419
Dusit Niyato, Ping Wang, Eleftherios Chatzinotas, Yifan Li

Friendship Based Routing in Delay Tolerant Mobile Social Networks .................................................................5424
Eyuphan Bulut, Boleslaw K. Szymanski

Towards Optimal Cooperative Caching in Social Wireless Networks .......................................................................5429
Mahmoud Taghandeh, Anthony Plummer Jr., Ali Aqel, Subir Biswas

An Implementation Scheme of Flow-Net and Its Applications on Detecting Attacks in Wireless Networks ..............5435
Bo Fu, Yong Xiao

On Unified Intra/Inter Coding and Signature/Hash Authentication Diversity for Efficient and Secure Wireless Video Transmission ............................................................................................................5440
Wei Wang, Michael Hempel, Dongming Peng, Hamid Sharifz, Honggang Wang, Hsiao-Hwa Chen

Secrecy in Two-Way Relay Systems ......................................................................................................................5445
Shengli Fu, Tao Zhang, Michael Covel

Identifying Insider-Based Jammers in Multi-Channel Wireless Networks ...............................................................5450
Hoang Nguyen, Thadpong Pongchawararakul, Klaras Naehrsted

Strategies of Collaboration in Multi-Channel P2P VoD Streaming .........................................................................5456
Zhi Wang, Chuan Wu, Lifeng Sun, Shiqiang Yang

ViVUD: Virtual Server Cluster Based View-Upload Decoupling for Multi-Channel P2P Video Streaming Systems ....5461
Chao Liang, Yong Liu

Dimensioning Network Interfaces with Aggregate P2P TV Traffic .......................................................................5466
Andrzej Bak, Piotr Gajowniczek

RS-VOD: Reliable and Scalable VOD Services Provisioning System Using P2P Retransmissions ............................5469
Abdelhamid NofI, Manon Gaucher, Liam Murphy

A Forwarding-Chain Based Mobile Multicast Scheme with Management Support ..................................................5475
Zhiwei Yan, Huachun Zhou, Hongke Zhang
The Integration of TESLA and FLUTE over Satellite Networks ............................................................... 5664
Shafiq U. Hashmi, Jahangir H. Sarker, Hussein T. Mouftah, Nicolas D. Georganas

Mode Switching Algorithms for DVB-S2 Links in W Band ........................................................................ 5670
Sandeep Mukherjee, Mauro De Sanctis, Tommaso Rossi, Ernestina Cianca, Marina Ruggieri, Ramjee Prasad

Leveraging Network Motifs for the Adaptation of Structured Peer-to-Peer-Networks ...................................... 5675
Lachezr Krunov, Immanuel Schweizer, Dirk Bradler, Thorsten Straupe

A Coalition Formation Game in Partition Form for Peer-to-Peer File Sharing Networks .................................... 5680
Walid Saad, Zhi Han, Tamer Basar, Merozane Debbah, Are Hjorungnes

On the Interactions between Non-Cooperative P2P Overlay and Traffic Engineering Behaviors .................... 5685
Chunqiang Wang, Ning Wang, Michael Howarth, George Pavlou

Deadline-Based Differentiation in P2P Streaming ......................................................................................... 5691
Csaba Kiraly, Renato Lo Cigno, Luca Abeni

Utilizing Destination Options Header to Resolve IPv6 Alias Resolution ..................................................... 5697
Shiyou Qian, Yuhai Wang, Ke Xu

DIMDS: A Cross Federation Identity Solution for Converged Networks ..................................................... 5703
K. L. Eddie Law, Barnabas Okeke

The Impact of Port-Based Address-Sharing on Residential Broadband Access Networks ................................ 5709
A. Ripke, R. Winter, M. Brunner, J. Quittek, H. Zuleger

PET: Prefixing, Encapsulation and Translation for IPv4-IPv6 Coexistence .................................................. 5715
Peng Wu, Yong Cui, Mingwei Xu, Jianping Wu, Xing Li, Chris Metz, Shengling Wang

Low-Complexity Leakage-Based Carrier Frequency Offset Estimation Techniques for OFDMA Uplink Systems ................................................................................................. 5720
Kibom Lee, Sung-Hyun Moon, Inkyu Lee

Accurate Performance Analysis of OFDM over Nakagami-m Fading with Nonuniform Phase Distribution ........ 5725
Khairi Ashour Hamdi

Capacity and Outage Probability in Multiuser OFDM Dual-Hop Relay Systems ........................................... 5730
Tsan-Ming Wu, Su-Liang Wang

Outage Exponent for OFDM Channels ............................................................................................................. 5735
Bo Bai, Wei Chen, Khaled Ben Letaief, Zhigang Cao

On Resource Reuse for Cellular Networks with Femto- and Macrocell Coexistence ..................................... 5740
Yongsheng Shi, Allen B. MacKenzie, Lutz A. Dasilva, Kaveh Ghassemi, Matti Latva-aho

Channel Assignment Problem: A Fuzzy-Based Hybrid Approach ................................................................ 5746
Liao G. U. Garcia, Gustavo W. O. Costa, Andrea F. Cattoni, Klaus I. Pedersen, Preben E. Mogensen

Efficient Link Scheduling for MIMO Ad Hoc Networks in Time-Varying Channels ..................................... 5762
Yan Shi, Michael A. Jensen

Scheduling Methods with MIMO Interference Alignment for Mutually Interfering Broadcast Channels ............ 5767
Haewook Park, Sook-Hwan Park, Hakjea Sung, Inkyu Lee

Multicell Scheduling in Network MIMO ........................................................................................................ 5772
Saeed Kaviani, Witold A. Krzymien

Resource Allocation and Scheduling in Multi-Cell OFDMA Decode-and-Forward Relaying Networks ............ 5777
Derrick Wing Kwan Ng, Robert Schober

Physical Layer Security for Two Way Relay Communications with Friendly Jammers ................................. 5783
Bongying Zhang, Lingyang Song, Zha Han, Bingli Jiao, Merozane Debbah

Location Spoofing Attack Detection in Wireless Networks ............................................................................ 5789
Jeong Heon Lee, R. Michael Buehrer

PHY-Authentication Protocol for Spoofing Detection in Wireless Networks ................................................. 5795
Liang Xiao, Alex Reznik, Wade Trappe, Chunsuan Ye, Yogendra Shah, Larry Greenstein, Narayun Mandalayam

Techniques for Enhanced Physical-Layer Security .......................................................................................... 5801
Pedro C. Pinto, Joan Barros, Moe Z. Win

New Representations for the Multivariate Weibull Distribution with Constant Correlation ........................... 5806
Kasun T. Hemachandra, Norman C. Beaulieu

Interference Analysis of Busy Burst Enabled Interference Avoidance .......................................................... 5811
Sinan Sinanovic, Gunther Auer, Harald Haas

Interference Alignment via Improved Subspace Conditioning ...................................................................... 5816
Douglas Kim, Murat Torkar

Creating Desirable Interference by Optimized Sectorization in Cellular Systems .......................................... 5821
I. Roelof, P. Root, M. Marsch, G. Fettweis

BICM-ID Systems with Signal Space Diversity over Rayleigh Fading Channels ........................................... 5826
Qiluan Xie, Ken Wu, Peng, Fang Yang, Zhaocheang Wang

Overlapping Clusters Algorithm in Ad Hoc Networks .................................................................................. 5831
Nevin Aydin, Farid Nait-Ahmedel, Voodymny Prymza, Damlia Targut

Lifetime Extending Heuristic for Clustered Wireless Sensor Networks ....................................................... 5836
E. L. Eddie Law, Barnabas Okeke

Maximization of Data Gathering in Clustered Wireless Sensor Networks .................................................... 5841
Tianqi Wang, Wendi Heinzelman, Alireza Seyedi

An Efficient TDMA Scheme with Dynamic Slot Assignment in Clustered Wireless Sensor Networks .......... 5846
Shafiq U. Hashmi, Jahangir H. Sarker, Hussein T. Mouftah, Nicolas D. Georganas
Sequential Random Selection Relaying for Energy Efficient Wireless Sensor Networks ..................................................5852
S. A. Mousavi Far, T. Khatib, M. Hasna

Equitable Energy Consumption during Repeated Transmissions in a Multihop Wireless Network .................................................5858
Aravind Kailas, Mary Ann Ingram

Energy-Efficient Duty Cycle Assignment for Receiver-Based Convergecast in Wireless Sensor Networks ...........................................5863
Yaqun Zhang, Chen-Hsiang Feng, Ilker Demirkoz, Wendi B. Heinzelman

Cooperative Relay Scheduling under Partial State Information in Energy Harvesting Sensor Networks ...........................................5868
Huijiang Li, Neeraj Jagg, Bipul Sikdar

Low Altitude Target Tracking Algorithm with Acoustic Wireless Sensor Network .................................................................5873
Yanfei Guo, Anke Sue, Hongyang Chen, Huajie Chen, Kaoru Sasaki

Joint Multiple Target Tracking and Channel Estimation in Wireless Sensor Networks ......................................................5878
Majdi Mansouri, Hickem Snoussi, Cedric Richard

Decentralized Robust Acoustic Source Localization with Wireless Sensor Networks for Heavy-Tail Distributed Observations ...........................................5883
Yong Liu, Yu Hen Hu, Quan Pan

Finding and Mending Barrier Gaps in Wireless Sensor Networks ..........................................................................................5888
Anwar Saipulla, Benyuan Liu, Jie Wang

Providing Secrecy Irrespective of Eavesdropper's Channel State ...........................................................................................5893
Xiang He, Aylin Yener

Trusted Storage over Untrusted Networks .................................................5898
Paulo F. Oliveira, Luisa Lima, Tiago T. V. Vinhoza, Joao Barros, Muriel Medard

Secure Broadcasting over Fading Channels with Statistical QoS Constraints .........................................................................5903
Deli Guo, Mustafa Cenk Gursoy, Senem Veliypasalar

A Framework for Partial Secrecy ........................................................................5908
Paul Cuff

A Novel Equalization Method for OFDM Systems without Guard Interval ..................................................................................5913
Umuts Yunus, Hai Lin, Katsumi Yamashita

Low Complexity Block Processing Algorithms for Adaptive Channel Estimation in OFDM Systems ...........................................5918
Christian Rohde, Wolfgang Gerstacker, Wolfgang Koch

TDS-OFDM Transmit Diversity Based on Space-Time Shifted CAZAC Sequence ....................................................................5924
Longdong Dai, Junao Wang, Zhancheng Wang, Jun Wang

Superimposed Pilot Based Joint CFO and Channel Estimation for CP-OFDM Modulated Two-Way Relay Networks ...........................................5929
Gongpu Wang, Feifei Gao, Chintia Tellambura

On the Computation/Memory Trade-Off in Software Defined Radios .......................................................................................5934
Vincenzo Pellegrini, Mario Di Dora, Luca Rose, Marco Luise

An Improved Method for Estimating the Time ACF of a Sum of Complex Plane Waves ..........................................................5939
Ali Chelli, Matthaus Pattold

Cyclostationary-Based Architectures for Spectrum Sensing in IEEE 802.22 WRAN ........................................................................5945
Deepa B, Anand Padmanabha Iyer, Chandra R. Murthy

Joint Encoder and Buffer Control for Statistical Multiplexing of Multimedia Contents .................................................................5950
Nesrine Chanquiel, Bessem Sayadi, Michel Kieffer

Optimal Constrained Candidate Selection for Opportunistic Routing ......................................................................................5956
Angela Sara Cacciapuoti, Marcello Caleffi, Luigi Pauro

Energy-Aware Real-Time Opportunistic Routing for Wireless Ad Hoc Networks .............................................................5961
Wei Yang, Weifong Liang, Weihua Dou

LOR: Localized Opportunistic Routing in Large-Scale Wireless Network ...........................................................................5967
Yanhuas Li, Debin Zou, Hao Wang, Zheng Zhou, Yuan-An Liu, Yan Quo

Opportunistic Overlay Multicast in Wireless Networks .................................................................................................................5972
Tan Le, Yong Liu

Simple and Effective Scheduling in Wireless Networks under the Physical Interference Model ..................................................5977
Dejun Yang, Yu Fang, Guoliang Xue, Abhishek Iran, Satyajayant Mitra

Greedy Maximal Scheduling in Wireless Networks ......................................................................................................................5982
Qiao Li, Rohit Negi

Distributed Scheduling and Routing in Underwater Wireless Networks ...................................................................................5987
Kurtis Kredo II, Prasun Mohapatra

An Opportunistic Scheduling Scheme for Cognitive Wireless Networks with Cooperative Beamforming ................................5993
Juan Liu, Wei Chen, Zhihong Cao, Ying Jun Zhang

Defending Resource Depletion Attacks on Implantable Medical Devices ..................................................................................5998
Xiali He, Xianjiang Du, Jie Wu, Fei Hu

Secure and Energy Aware Routing (SEAR) in Wireless Sensor Networks ..............................................................................6003
Di Tang, Tingting Jiang, Jian Ren

Secure Cooperation Incentive Scheme with Limited Use of Public Key Cryptography for Multi-Hop Wireless Network ...........................................6008
Mohamed Elsaith Mahmoud, Xuemin Shen

Robust State Estimation under False Data Injection in Distributed Sensor Networks .........................................................6013
Yangfei Guo, Anke Sue, Hongyang Chen, Huajie Chen, Kaoru Sasaki

Collaborative ISP-CP Live Streaming ........................................................................................................................................6018
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing Strict Priorities in IEEE 802.11p WAVE Vehicular Networks</td>
<td>6194</td>
</tr>
<tr>
<td>Compromising Electromagnetic Field Radiated by In-House PLC Lines</td>
<td>6200</td>
</tr>
<tr>
<td>Opportunistic Relaying in In-Home PLC Networks</td>
<td>6205</td>
</tr>
<tr>
<td>Characterization and Evaluation of In-Vehicle Power Line Channels</td>
<td>6210</td>
</tr>
<tr>
<td>Need-Based Communication for Smart Grid: When to Inquire Power Price?</td>
<td>6215</td>
</tr>
<tr>
<td>Power Control for Constrained Throughput Maximization in Spectrum Shared Networks</td>
<td>6220</td>
</tr>
<tr>
<td>The Information Propagation Speed Upper Bound in Cognitive Radio Networks</td>
<td>6226</td>
</tr>
<tr>
<td>Evaluating Wireless Network Effects for SLAM Robot Map Making</td>
<td>6232</td>
</tr>
<tr>
<td>Multi-Agent System Based Wireless Sensor Network for Crisis Management</td>
<td>6242</td>
</tr>
<tr>
<td>Synchronization and Timing in Packet Networks</td>
<td>6248</td>
</tr>
<tr>
<td>Optimal Resource Allocation for Disaster Recovery</td>
<td>6253</td>
</tr>
<tr>
<td>Skip Finite Automaton: A Content Scanning Engine to Secure Enterprise Networks</td>
<td>6258</td>
</tr>
<tr>
<td>Characterizing the Scam Hosting Infrastructure</td>
<td>6263</td>
</tr>
<tr>
<td>Scalable Markov Chain Based Algorithm for Fault-Isolation in Autonomic Networks</td>
<td>6268</td>
</tr>
<tr>
<td>Virtual Network Embedding for Evolving Networks</td>
<td>6274</td>
</tr>
<tr>
<td>On Comparing the Performance of Dynamic Multi-Network Optimizations</td>
<td>6279</td>
</tr>
<tr>
<td>Design and Evaluation of an Intelligent Rate Controller for Heterogeneous Networks</td>
<td>6284</td>
</tr>
<tr>
<td>Uplink Inter-Cell Interference Coordination through Soft Frequency Reuse</td>
<td>6289</td>
</tr>
<tr>
<td>Pilot Symbol Assisted Adaptive Modulation for OFDM Systems with Imperfect Channel State Information</td>
<td>6294</td>
</tr>
<tr>
<td>Joint Blind Channel and Control Signal Estimation for OFDM Systems</td>
<td>6300</td>
</tr>
<tr>
<td>Multiple Access Schemes for DCT-Based OFDM: Derivation and Comparison</td>
<td>6305</td>
</tr>
<tr>
<td>Distributed Space-Time Coding for Two-Path Successive Relaying</td>
<td>6310</td>
</tr>
<tr>
<td>Blind Modulation Identification for MIMO Systems</td>
<td>6315</td>
</tr>
<tr>
<td>Golden Coded Multiple Beamforming</td>
<td>6320</td>
</tr>
<tr>
<td>A Simple Construction of Full-Rate Quasi-Orthogonal Space-Time Block Codes for 4 and 6 Transmit Antennas</td>
<td>6325</td>
</tr>
<tr>
<td>Reducing Downlink Signaling Traffic in Wireless Systems Using Mobile-Assisted Scheduling</td>
<td>6330</td>
</tr>
<tr>
<td>Optimal Routing and Scheduling of Deadline-Constrained Traffic over Lossy Networks</td>
<td>6335</td>
</tr>
<tr>
<td>Scheduling under SINR Model in Ad Hoc Networks with Successive Interference Cancellation</td>
<td>6341</td>
</tr>
<tr>
<td>Differential Signaling of Scheduling Information in Wireless Multiple Access Systems</td>
<td>6346</td>
</tr>
<tr>
<td>Distributed QoS-Aware MAC for Multimedia over Cognitive Radio Networks</td>
<td>6352</td>
</tr>
<tr>
<td>Design and Analysis of Defection-Proof MAC Protocols Using a Repeated Game Framework</td>
<td>6357</td>
</tr>
<tr>
<td>Parallel Link Rendezvous in Ad Hoc Cognitive Radio Networks</td>
<td>6363</td>
</tr>
<tr>
<td>On the Distortion Exponent of Partially Closed-Loop Wireless Systems</td>
<td>6375</td>
</tr>
</tbody>
</table>
Video Streaming with PCA and Hard vs Soft DRP .............................................................................................................6566
Rahul Desai, Juming Pan

Power-Aware Scalable Video Multicast in 4G Wireless Systems ..........................................................6572
Ya-Ju Yu, Pi-Cheng Hsu, Ai-Chun Pang, Chi-Ping Lai

Age Invariant Regime for Multi-Source Content Update in Mobile Opportunistic Networks .............................................................................................................6578
Sungwoon Kim, Do Young Eun

Physical Layer Error Correction Based Cipher ..........................................................................................6583
Olawale Adamosu, Shengli Fu, M. R. Varanasi

Augmenting Bit-Level Network Security Using Physical Layer RF-DNA Fingerprinting ..........................6588
M. C. Williams, Michael A. Temple, Donald B. Reising

A Threat-Aware Routing Algorithm for Maximum Physical-Layer Path Survivability ..........................6594
Shengli Yuan, Balaji Ragavachari, Lei Chen

Optimal Scheduling for Network Coding: Delay v.s. Efficiency .................................................................6605
Jingyao Zhang, Pingyi Fan

Providing Reliable Data Services in Hybrid WSNs with Transmit-Only Nodes ........................................6610
Artem Argin, Voezel Altunbasak

Survivable Virtual Infrastructure Mapping in a Federated Computing and Networking System under Single Regional Failures .............................................................................................................6616
Otto Kassinen, Erkki Harjula, Mika Tijantila

Distortion Analysis of Wyner-Ziv Distributed Video Coding ........................................................................6621
Siuyang Xiang, Lin Cai

Predicting Critical Intradomain Routing Events .........................................................................................6626
M. Marchese, M. Mongelli, G. Portomauro

Failure Prediction Based on Multi-Scale Frequent Anomalous Behavior Identification in Support of Autonomic Networks .............................................................................................................6631
Hesham J. Abed, Alia Al-Fuqaha, Mohsen Guizani, Ammar Bayes

Feedback-Free Early VoIP Quality Adaptation Scheme in Next Generation Networks ..........................................6636
Is-Huda Mokwowa, Emmanuel Jammeh, Longfen Sun, Emmanuel Feechork

CellSense: A Probabilistic RSSI-Based GSM Positioning System ..........................................................6641
Mohamed Ibrahim, Moustafa Youssef

Survival Virtual Infrastructure Migration with Survivable Networking in Single Failure Scenarios ..........................................6646
Jia Zhao, Raghu Ram S. Sudhaakar, Chunming Qiao

Multicollinear Estimation of Outage Probabilities in MIMO Channels .................................................6652
Hongyi Yu, Chuanming Qiao, Vishal Anand, Yin Liu, Hao Di, Gang Sun

A Performance Guarantee for Maximal Schedulers in Sensor Networks with Cooperative Relays .............................................................................................................6657
Huijiang Li, Biplob Sikdar

Heuristic-Based Request Scheduling Subject to a Percentile Response Time SLA in a Distributed Cloud ..........................................6663
Keehwan Bok, Rada Chirkova, Timo Salo, Yannis Viniotis

Optimal Scheduling for Network Coding: Delay v.s. Efficiency .................................................................6668
Junmei Qu, Zenghua Zhao, Yiqian Si, Lianfeng Zhang, Yantai Shu, Oliver W. W. Yang

Delay-Sensitive Retransmission Method Based on Network Coding in IEEE 802.11 Wireless LANs ..........6673
Hongfang Yu, Chunming Qiao, Vishal Anand, Xin Liu, Hao Di, Gang Sun

Enhanced Protection Schemes to Guarantee Consistent Filtering Database in Ethernet Rings ..........................................6679
Hongfang Yu, Chunming Qiao, Vishal Anand, Xin Liu, Hao Di, Gang Sun

Error Recovery Framework Design for the IPTV Networks ..................................................................6684
Heng Yang, Yaxin Pu, Weiwei Pan, Wei Li

Simple Protocol Enhancements of Rapid Spanning Tree Protocol over Ring Topologies ..........................................6702
M. Marchese, M. Mongelli, G. Portomauro

How Precise Should Localization Be? A Quantitative Analysis of the Impact of Delay and Mobility on Reliability of Location Information .................................................................6707
Rasmus L. Olsen, Joao Figueiras, Jakob G. Rasmussen, Hans-Peter Schwefel

Formulation of a New Constraint for Admitting Flows in Multi-Rate Wireless Ad Hoc Networks .............................................................................................................6713
Junmei Qu, Zenghua Zhao, Yiqian Si, Lianfeng Zhang, Yantai Shu, Oliver W. W. Yang

A Graph-Theoretic QoS-Aware Vulnerability Assessment for Network Topologies ..........................................6718
Ying Xuan, Yili Shen, Nam P. Nguyen, My T. Thai

Dynamic Spectrum Access with QoS Provisioning in Cognitive Radio Networks ..........................................6723
Chunyan An, Hong Ji, Pengbo Si

Resource Allocation with Load Balancing for Cognitive Radio Networks .........................................................6728
Haoduo Wang, Jian Ren, Tongtong Li

Distributed Spectrum Access in Cognitive Radio Network Employing Rateless Codes ..........................................6733
Shaoli Chen, Zhaoyang Zhang, Xiaoming Chen, Kedi Wu

Dynamic Channel Selection in Cognitive Radio Network with Channel Heterogeneity .........................................................6739
Fen Hou, Jianwei Huang
Performance Evaluation of Iterative Channel Codes for Digital Data Storage on Microfilm.................................................................6745
Symmetric Allocations for Distributed Storage .................................................................................................................................6750
Performance Evaluation for ML Sequence Detection in ISI Channels with Gauss Markov Noise ..........................................................6756
Autonomous Spectrum Balancing Using Multiple Reference Lines for Digital Subscriber Lines ..........................................................6761
An Algorithm for Improved Stability of DSL Networks Using Spectrum Balancing ........................................................................6767
Novel Sleep Control for EPON Optical Line Terminal Employing Layer-2 Switch Functions ..................................................................6773
Closed Access OFDMA Femtocells under Timing Misalignment .........................................................................................................6778
Hybrid Coherent/Energy Detection for Cognitive Radio Networks .....................................................................................................6783
Stochastic Resonance Noise Enhanced Spectrum Sensing in Cognitive Radio Networks ..................................................................6789
Cyclostationarity-Based Detection of LTE OFDM Signals for Cognitive Radio Systems .................................................................6795
Distributed Resource Allocation for Cognitive Radio Ad-Hoc Networks with Spectrum-Sharing Constraints ..............................6801
Distributed Heuristics for Allocating Spectrum in CR Ad hoc Networks ..............................................................................................6807
On Random Dynamic Spectrum Access for Cognitive Radio Networks ..................................................................................................6813
An Efficient Approach to Per-Flow State Tracking for High-Speed Networks ....................................................................................6818
Towards Measuring the Deployment Information of Different TCP Congestion Control Algorithms: The Multiplicative Decrease Parameter ..................................................................................................................6824
Leveraging Correlations between Capacity and Available Bandwidth to Scale Network Monitoring ..........................................................6829
Measuring the Effectiveness of Hierarchical Address Assignment ........................................................................................................6834
Population-Aware Caching Algorithm for Video-on-Demand Delivery over Broadband Access Networks .............................................6840
Storing and Replication in Topic-Based Publish/Subscribe Networks ....................................................................................................6845
Web-IMS Convergence Architecture and Prototype .................................................................................................................................6850
An Optimal Solution to the Distributed Data Retrieval Problem ........................................................................................................6855
Amplify-and-Forward Cooperative Diversity for BICM-OFDM Systems ..............................................................................................6861
Comparison of Fractional Frequency Reuse Approaches in the OFDMA Cellular Downlink ..................................................................6867
A Decentralized Subchannel Allocation Scheme with Inter-Cell Interference Coordination (ICIC) for Multi-Cell OFDMA Systems .........6872
Optimal Joint Water-Filling for OFDM Systems with Multiple Cooperative Power Sources ........................................................................6877
Multi-Antenna Multicasting with Opportunistic Multicast Scheduling and Space-Time Transmission ......................................................6882
Correction of the CFO in OFDM Relay-Based Space-Time Codes ........................................................................................................6887
Differential Cooperative Communications with Space-Time Network Coding .........................................................................................6893
General Construction Method of Bounded Delay-Tolerant Space Time Block Codes ..............................................................................6898
A New Receiver Design for Single-Carrier Frequency Domain Equalization in Broadband Cooperative Wireless Networks .................6904
Reduced Complexity Sphere Decoder for Spatial Modulation Detection Receivers ..................................................................................6910
A New Self-Calibration Method for Transmitter and Receiver Radio Impairments in Direct-Conversion Architecture ...................................6915
New Identification Sequence Analysis for Multiple Transmitters Subject to Arbitrary Topologies .................................................. 6921
Xiaoyu Feng, Hsiao-Chun Wu, Yiyan Wu

Wideband Sequential Spectrum Sensing with Varying Thresholds ................................................................. 6926
Kasra Haghighi, Arne Svensson, Erik Agrell

Bi-Directional Cooperative Relays for Transmitted Reference Pulse Cluster UWB Systems .......................................................... 6931
Xue Dong, Xiaodai Dong

An Analytical Framework for Assessing Coding Performance in Multi-User IR-UWB Systems ............................................................ 6936
Hua Shao, Norman C. Beaulieu

Energy Detection of Wideband and Ultra-Wideband PPM ................................................................. 6942
Shahzad Gishkori, Geert Leus, Hakan Delp

Author Index