IEEE
COMMUNICATIONS LETTERS

A PUBLICATION OF THE IEEE COMMUNICATIONS SOCIETY

OCTOBER 2007 VOLUME 11 NUMBER 10 ICLEF6 (ISSN 1089-7798)

MODULATION AND SIGNAL DESIGN

An Exact Framework for Performance Analysis of IR–UWB Systems: The Need for Approximations . . . 769
Marco Di Renzo, Fabio Graziosi, and Fortunato Santucci

A Fast Elementwise Update Algorithm for Mean-Square Aperiodic Correlation Metrics . . . 772
Justin S. Dyer and Balasubramaniam Natarajan

WIRELESS COMMUNICATIONS

Level Crossing Rates of Ricean MIMO Channel Eigenvalues for Imperfect and Outdated CSI . . . 775
Predrag Ivanis, Dusan Drajic, and Branka Vucetic

Analysis of Target Detection Probability in Randomly Deployed Sensor Networks . . . 778
Ertan Onur, Cem Ersoy, and Hakan Delic

Enhanced GPSR Routing in Multi-Hop Vehicular Communications through Movement Awareness . . . 781
Fabrizio Granelli, Giulia Boato, Dzmitry Kliazovich, and Gianni Vernazza

On the Capacity of Ultra Wideband Block Transmission Systems with Narrowband Interference Avoidance . . . 784
Justin P. Coon

Selection Combining Site Diversity Performance in High Altitude Platform Networks . . . 787
Athanasios D. Panagopoulos, Evangelia M. Georgiadou, and John D. Kanellopoulos

Lognormal Sum Approximation with Type IV Pearson Distribution . . . 790
Hong Nie and Shaohua Chen

Collision-Free and Low-Latency Scheduling Algorithm for Broadcast Operation in Wireless Ad Hoc Networks . . . 793
Wei Wang and Boon-Hee Soong

Differentially Coherent Detection of Differentially Bi-Orthogonal Code . . . 796
Sang-Hun Yoon, Jong-Wha Chong, and Kyung-Kuk Lee

Primary System Detection for Cognitive Radio: Does Small-Scale Fading Help? . . . 799
Erik G. Larsson and Giorgio Regnoli

Joint Space-Frequency Iterative Interference Suppression in Multiuser MIMO-OFDM Systems . . . 802
Min Huang, Yunzhou Li, Shidong Zhou, and Jing Wang

On the Average of the Product of Two Gaussian Q-Functions over Nakagami-q (Hoyt) Fading and Its Application . . . 805
Xianfu Lei, Pingzhi Fan, and Qingchun Chen

CODING AND COMMUNICATION THEORY

Approaching the Outage Probability of the Amplify-and-Forward Relay Fading Channel . . . 808
Ghassan M. Kraidy, Joseph J. Boutros, and Albert Guillen i Fabregas

Chase Decoding of Linear Z_4 Codes at Low to Moderate Rates . . . 811
Marc A. Armand, A. Halim, and A. Nallanathan

Prefix Coding of Integers with Real-valued Predictions using Cosets . . . 814
Mortuza Ali and Manzur Murshed

(Table of Contents continued on back cover)

IEEE

Speech, Image, Video and Signal Processing

Application of the Whittle Estimator to the Modeling of Traffic Based on the M/G/ ∞ Process 817
M. E. Sousa, A. Suarez, J. C. Lopez, C. Lopez, M. Fernandez, and R. F. Rodriguez

Network Architecture and Design

A Contention Detection Scheme for Lightpath Restoration in GMPLS Networks 820
Nicola Sambo, Alessio Giorgetti, Isabella Cerutti, and Piero Castoldi

Communication Protocols

Stability Analysis of Explicit Congestion Control Protocols 823
Hamsa Balakrishnan, Nandita Dukkipati, Nick McKeown, and Claire J.Tomlin

Performance of Transport Protocols for Multimedia Communications in Wireless Sensor Networks 826
Ozgur B. Akan

Network Operations and Management

Trial Results of Intelligent Paging in GERAN 829
J. Wang, H. Zhang, M. Toril, and V. Wille