MILCOM 2015 – 2015 IEEE Military Communications Conference

Tampa, Florida, USA 26-28 October 2015

Pages 1-847



IEEE Catalog Number: ISBN:

CFP15MIL-POD 978-1-5090-0074-6

Copyright © 2015 by the Institute of Electrical and Electronic Engineers, Inc All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***This publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.

IEEE Catalog Number: CFP15MIL-POD ISBN (Print-On-Demand): 978-1-5090-0074-6

ISSN: 2155-7578

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA

Phone: (845) 758-0400 Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



2015 IEEE Military Communications Conference

Milcom 2015 Track 3: Milcom 2015 Track 3 - Cyber Security and Trusted Computing

Science of Security Research I

Insider Attack Detection using Weak Indicators over Network Flow Data Roberto Pagliari (Applied Communication Sciences, USA), Abhrajit Ghosh (Applied Communication Sciences, USA), Yitzchak M. Gottlieb (Applied Communication Sciences, USA), Ritu Chadha (Applied Communication Sciences, USA), Akshay Vashist (Otsuka Pharmaceuticals Development Corporation, USA), Gregory Hadynski (Air Force Research Lab, USA)	1
Enforcing Agile Access Control Policies in Relational Databases using Views	
Nicolas Papernot (The Pennsylvania State University, USA), Patrick McDaniel (Pennsylvania State University, USA), Robert Walls (The Pennsylvania State University, USA)	7
TREND: Trust Estimation System for Wireless Networks via Multi-Pronged Detection	
Ritu Chadha (Applied Communication Sciences, USA), Abhrajit Ghosh (Applied Communication Sciences, USA), Alexander Poylisher (Applied Communication Sciences, USA), Constantin Serban (Applied Communication Sciences, USA)	13
Proactive Restart as Cyber Maneuver for Android	
Zhiyong Shan (University of California, Riverside, USA), Iulian Neamtiu (University of California, Riverside, USA), Zhiyun Qian (University of California, Riverside, USA), Don Torrieri (US Army Research Laboratory, USA)	19
Stealthy Attacks Meets Insider Threats: A Three-Player Game Model	
Xiaotao Feng (University of California, Davis, USA), Zizhan Zheng (University of California, Davis, USA), Pengfei Hu (University of California, Davis, USA), Derya Cansever (Army CERDEC, USA), Prasant Mohapatra (University of California, Davis, USA)	25
A Framework to Evaluate Cyber Agility	
Lisa Marvel (Amry Research Laboratory, USA), Scott Brown, II (Army Research Lab, USA), Iulian Neamtiu (University of California, Riverside, USA), Richard Harang (United States Army Research Laboratory, USA), David Harman (US Army Research Laboratory, USA), Brian Henz (US Army Research Laboratory, USA)	31

Covert Communications and Related Topics

Αl	n Architecture for Secure Interoperability between Coalition Tactical MANETs	
	Mazda Salmanian (Defence R&D Canada, Canada), David Brown (DRDC,	
	Canada), Susan Watson (Defence Scientist, Canada), Ronggong Song (DRDC-	
	Ottawa, Canada), Helen Tang (DRDC Ottawa, Canada), Darcy Simmelink	
	(Defence R&D Canada, Canada)	37

Customizable Sponge-Based Authenticated Encryption Using 16-bit S-boxes Michael T. Kurdziel (Harris Corporation, USA), Marcin Lukowiak (Rochester Institute of Technology, USA), Stanisław Radziszowski (Rochester Institute of Technology, USA), Matthew Kelly (Rochester Institute of Technology, USA), Alan Kaminsky (Rochester Institute of Technology & Parallel Crypto LLC, USA)	. 43
Constructing Large S-boxes with Area Minimized Implementations	
Christopher Wood (University of California, Irvine, USA), Stanisław Radziszowski (Rochester Institute of Technology, USA), Marcin Lukowiak (Rochester Institute of Technology, USA)	. 49
Covert Communication based Privacy Preservation in Mobile Vehicular Networks	
Rasheed Hussain (Innopolis University & Information Security and Privacy Lab, Russia), Donghyun Kim (North Carolina Central University, USA), Alade Tokuta (North Carolina Central University, USA), Hayk Melikyan (North Carolina Central University, USA), Heekuck Oh (Hanyang University, Korea)	. 55
Secure Distributed Storage for Information Dissemination and Retrieval at the Tactical Edge	
Reece Johnston (University of Alabama in Huntsville, USA), Sun-il Kim (University of Alabama in Huntsville, USA)	61
Effective steganographic filter based on Raspberry Pi 2 architecture	
Krzysztof Sawicki (Military University of Technology, Poland), Zbigniew Piotrowski (Military University of Technology, Poland), Damian Bachmat (Military University of Technology, Poland)	. 67

Milcom 2015 Track 2: Milcom 2015 Track 2 - Networking Protocols and Performance

Medium Access Control

	pectrum Sharing Environments	
	Venkatesh Ramaswamy (The MITRE Corporation, USA), Jeffery Correia (The MITRE Corporation, USA)	. 73
	lulti-Round Transmission Protocol with Multipacket Reception for Multirate EEE802.11 WLANs	
	Victor Sandoval-Curmina (CINVESTAV-IPN, Mexico), Ramon Parra-Michel (Cinvestav Unidad Guadalajara, Mexico), Aldo Orozco (CINVESTAV, Mexico)	. 79
	IR-CRDSA: Multiple Reservation-Contention Resolution Diversity Slotted ALOHA or Battle-field Communication	
	Lee Yunseong (University of ajou, Korea), Jin Seok Lee (Ajou University, Korea), Hong Jun Noh (LIG Nex1, Korea), Hyungwon Park (LIG Nex1, Korea), Jae Sung Lim (Ajou University, Korea)	. 85
	nvestigations on Network-Wide Load Balancing for Proportional Fair Scheduling ased TDMA Cellular Systems	
	Venkatesh Ramaswamy (The MITRE Corporation, USA)	91
Α	Concurrent CSMA MAC protocol for Mobile Ad Hoc networks using beamnulling	
	Hemant Saggar (University of California, Los Angeles, India), Yi Jiang (Silvus Technologies, USA), Babak Daneshrad (University of California, Los Angeles, USA), Gregory Pottie (University of California at Los Angeles, USA)	. 97

Osama A.H. Al-Tameemi (University of Central Florida, USA), Mainak Chatterjee (University of Central Florida, USA), Kevin Kwiat (Air Force Research Laboratory, USA), Charles A Kamhoua (Air Force Research Laboratory & Information Directorate, USA)	103
fulticast and Software-Defined Networking	
Rate Adaptation Algorithm for Multicast Communication in Tactical Networks Syamsul Rizal (Kumoh National Institute of Technology, Korea), Dwi Nugroho (Networked Systems Lab., Kumoh National Institute of Technology, Korea), Kim Seung-Hwan (Kumoh National Institute of Technology, Korea), Dong	100
Seong Kim (Kumoh National Institute of Technology, Korea)	109
Rahul Amin (MIT Lincoln Laboratories, USA), Gregory Kuperman (MIT Lincoln Laboratory, USA)	115
Networking for Next Generation NBWF Radios Li Li (Communication Research Centre of Canada, Canada), Humphrey Rutagemwa (Communications Research Centre (CRC) Canada, Canada), Colin Brown (CRC, Canada), Thomas Kunz (Carleton University, Canada), Philip J Vigneron (Communications Research Centre & Industry Canada, Canada), Jiangxin Hu (Communication Research Centre Canada, Canada), Philip Hugg (Communications Research Centre, Canada)	121
Experiment and Field Demonstration of Serverless Group Communication Carrie Spiker (Boeing Research & Technology, USA), Rodolfo Santiago (The Boeing Company, USA), Thomas Goff (MIT Lincoln Laboratory, USA), Claudiu Danilov (Boeing, USA), Jae H Kim (Boeing Research & Technology & The Boeing Company, USA), Brian Adamson (Naval Research Laboratory, USA), David Shur (Applied Communication Sciences, USA), Kyriakos Manousakis (Applied Communication Sciences, USA)	
Evaluation of OpenFLow Load Balancing for Navy	127
Raheleh B Dilmaghani (SSC-PAC & University of California, San Diego, USA), Dae Kwon (SPAWAR Systems Center Pacific, USA)	133
Software-Defined Dynamic Power-Control and Directional-Reuse Protocol for TDMA Radios	
George F Elmasry (Rockwell Collins, USA), Brian Aanderud (Rockwell Collins, USA), Wayne Kraus (Rockwell Collins, USA), Robert McCabe (Rockwell Collins, USA)	139

Distributed MAC for Connectivity Maximization of Interference Limited Un-

Coordinated DSA Networks

Milcom 2015 Track 5: Milcom 2015 Track 5 - Selected Topics in Communications

Multimedia Communication

Scalable Multimedia Optimization in MIMO Systems Seok-Ho Chang (Dankook University, Korea), Jihwan P. Choi (Daegu Gyeongbuk Institute of Science and Technology, Korea), Pamela Cosman (University of California, San Diego, USA), Laurence Milstein (University of California, USA)	145
Statistical-QoS Based Gaming for Optimal Power Allocations Over Virtualized Wireless Relay Networks Supporting Multimedia Services	
Qixuan Zhu (Texas A&M University, USA), Xi Zhang (Texas A&M University, ECE Department, USA)	151
A novel video saliency map detection model in compressed domain	
Jun Xu (Beijing University of Posts and Telecommunications, P.R. China), Xiaoqiang Guo (Academy of Broadcasting Science, P.R. China), Qin Tu (Beijing University of Posts and Telecommunications, P.R. China), Cuiwei Li (Beijing University of Posts and Telecommunications, P.R. China), Aidong Men (Beijing University of Posts and Telecommunications, P.R. China)	157

Milcom 2015 Track 4: Milcom 2015 Track 4 - System Perspectives

Satellite Communications

On MIMO SATCOM Capacity Analysis: Utilising Polarization and Spatial Multiplexing	
Balachander Ramamurthy (Defence Science and Technology Organisation, Australia), William G Cowley (University of South Australia, Australia), Linda M. Davis (University of South Australia, Australia), Gerald Bolding (Defence Science and Technology Organisation, Australia)	. 163
Distributed Policy Enforcement for Priority Awareness in Tactical SATCOM Networks	
John Sucec (Applied Communication Sciences, USA), Mariusz A Fecko (Applied Communication Sciences (ACS), USA), Baron Ong (Scalable Network Technologies, USA), Wei Liu (Scalable Network Technologies, USA), Sheetal Doshi (Scalable Network Technologies, USA), Kurt Turck (United States Air	
Force Research Labs, USA)	. 169
Thomas C Royster (MIT Lincoln Laboratory, USA), James Streitman (MIT Lincoln Laboratory, USA)	. 175
Implementation and Testing of the Protected Tactical Waveform (PTW) Brian J. Wolf (MIT Lincoln Laboratory, USA), Jacob Huang (MIT Lincoln Laboratory, USA)	. 181
Contributions to MUOS Communication Link Assessments at the Arctic Circle Locations	
Jonathon Y. Cheah (MITRE, USA)	. 187

adar, I	Detection, & Localization 1
	Multimodal Target Detection via Integrated GLRT Steven Kay (University of Rhode Island, USA), Fuat Cogun (University of
	Rhode Island, USA) A Portable SIMO Radar for Through Wall Detection and Imaging David A Boutte (AKELA Inc., USA), Hua Lee (University of California Santa Barbara, USA), Vince Inc., USA), Vince Inc., USA)
	USA), Allan Hunt (AKELA Inc., USA) Localization of Illegal Radios Utilizing Cross-correlation of Channel Impulse Response with Interpolation in Urban Scenarios
	Azril Haniz (Tokyo Institute of Technology, Japan), Gia Khanh Tran (Tokyo Institute of Technology, Japan), Kei Sakaguchi (Tokyo Institute of Technology, Japan), Jun-ichi Takada (Tokyo Institute of Technology, Japan), Daisuke Hayashi (Koden Electronics Co., Ltd., Japan), Toshihiro Yamaguchi (Koden Electronics Co., Ltd., Japan), Shintaro Arata (Koden Electronics Co., Ltd., Japan)
	Underwater DoA Estimation Based on Nested Array
	Na Wu (University of Texas at Arlington, USA), Qilian Liang (University of Texas at Arlington, USA)
	Probable Regions for Emitter Localization
	Y. t. Chan (Royal Military College of Canada, Canada), Francois Chan (Royal Military College, Canada), William Read (Defence R&D Canada, Canada), Robert J. Inkol (Royal Military College, Canada), Brad Jackson (Defence R&D Canada, Canada), Bernard Haynes Lee (Royal Military College of Canada, Canada)
	Threshold Estimation for UWB Single Pulse Radar
	Hyunwoo Cho (Georgia Institution of Technology, USA), Xiaoli Ma (Georgia Institute of Technology, USA)

Missing Spectrum-Data Recovery in Cognitive Radio Networks Using Piecewise Constant Nonnegative Matrix Factorization	
Alireza Zaeemzadeh (University of Central Florida, USA), Mohsen Joneidi (University of Central Florida, USA), Behzad Shahrasbi (University of Central Florida, USA), Nazanin Rahnavard (University of Central Florida, USA)	238
Cognitive Radio Unified Spectral Efficiency and Energy Efficiency Trade-off Analysis	
Gang Wang (Intelligent Fusion Technology, Inc., USA), Khanh Pham (Air Force Research Laboratory & Space Vehicles Directorate, USA), Erik Blasch (Air Force Research Lab, USA), Tien Manh Nguyen (The Catholic University of America & School of Engineering, USA), Dan Shen (Intelligent Fusion Technology, USA), Xin Tian (Intelligent Fusion Technology, Inc, USA), Genshe Chen (Intelligent Fusion Technology, Inc, USA)	244
Estimating the Use of Spectrum for Defining and Enforcing the Spectrum Access Rights	
Nilesh V Khambekar (University at Buffalo, USA), Vipin Chaudhary (University at Buffalo, SUNY, USA), Chad M Spooner (NorthWest Research Associates, USA)	250
Compressed Spectrum Sensing based on Correlation of Spectrum Occupation States Between Sensing Periods	
Yanbo Wang (Beijing University of Posts and Telecommunications, P.R. China), Caili Guo (Beijing University of Posts and Telecommunications, P.R. China), Xuekang Sun (Beijing University of Posts and Telecommunications, P.R. China), Chunyan Feng (Beijing University of Posts and Telecommunications, P.R. China)	258
Mixed Signal Detection and Symbol Rate Estimation based on Spectral Coherent Features	
Dong Li (Wright State University, USA), John Ellinger (Air Force Research Laboratory, USA), Zhiqiang Liu (Naval Research Laboratory, USA), Zhiqiang Wu (Wright State University, USA), Zhiping Zhang (Wright State University, USA)	263
,	
Layer Security	
Anomaly-Based Intrusion Detection of Protocol-Aware Jamming	
Marc Lichtman (Virginia Tech, USA), Jeffrey Reed (Virginia Tech, USA) Emulated CP Jamming and Nulling Attacks on SC-FDMA and Two Novel Countermeasures	
Jasmin A Mahal (Virginia Tech, USA), Chowdhury Shahriar (Virginia Tech, USA), T. Charles Clancy (Virginia Tech, USA)	275
On Physical Layer Security for Cognitive Radio Networks with Primary User Interference	
Louis Sibomana (Blekinge Institute of Technology, Sweden), Hung Tran (ETS, Canada), Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden)	281
Secure Information Transmission in Filter Bank Multi-Carrier Spread Spectrum Systems	
Arslan J. Majid (University of Utah, USA), Hussein Moradi (Idaho National Laboratory, USA), Behrouz Farhang-Boroujeny (University of Utah, USA)	287

Physical

Out-Phased Array Linearized Signaling (OPALS): A Practical Approach to Physical Layer Encryption	
Eric Tollefson (MIT Lincoln Laboratory, USA), Bruce R Jordan, JR (MIT Lincoln Laboratory, USA), Joseph D. Gaeddert (MIT LL, USA)	294
Exhaustive Attack Analysis of BBC With Glowworm for Unkeyed Jam Resistance Leemon Baird (US Air Force Academy, USA), Bill Parks (Carnegie Mellon	300
Milcom 2015 Track 5: Milcom 2015 Track 5 - Selected Topics in Communications	
Multicasting	
Efficient Multicast in Hybrid Wireless Networks	
Prithwish Basu (Raytheon BBN Technologies, USA), Chi-Kin Chau (Masdar Institute of Science and Technology, UAE), Andrei Iu. Bejan (The Smith Institute for Industrial Mathematics and System Engineering, United Kingdom), Richard J Gibbens (University of Cambridge, United Kingdom), Saikat Guha (Raytheon BBN Technologies, USA), Matthew P Johnson (City University of New York, USA)	306
Multicast vs. Unicast for Loss Tomography on Tree Topologies Chang Liu (University of Massachusetts, Amherst, USA), Don Towsley (University of Massachusetts at Amherst, USA), Ting He (IBM Research, USA), Theodoros Salonidis (IBM Research, USA), Ananthram Swami (Army Research Lab., USA), Paul Yu (Army Research Laboratory, USA), Andrei Iu. Bejan (The Smith Institute for Industrial Mathematics and System Engineering, United	
Milcom 2015 Track 3: Milcom 2015 Track 3 - Cyber Security and Truste Computing	
Science of Security Research II	
Computational Ontology of Network Operations Alessandro Oltramari (Carnegie Mellon University, USA), Lorrie Cranor (Carnegie Mellon University, USA), Robert Walls (The Pennsylvania State University, USA), Patrick McDaniel (Pennsylvania State University, USA)	818
Detecting Malicious Android Applications from Runtime Behavior Nathaniel Lageman (Pennsylvania State University, USA), Mark Lindsey (Pennsylvania State University, USA), William Glodek (US Army Research Laboratory, USA)	324
Malware Traffic Detection using Tamper Resistant Features Z. Berkay Celik (Penn State University, USA), Robert Walls (The Pennsylvania State University, USA), Patrick McDaniel (Pennsylvania State University, USA), Ananthram Swami (Army Research Lab., USA)	

	Ecology-Inspired Cyber Risk Model for Propagation of Vulnerability Exploitation in Tactical Edge	
	Hasan Cam (Army Research Laboratory, USA), James Morris-King (US Army Research Lab, USA)	336
	Adaptive Protocol Switching Using Dynamically Insertable Bumps in the Stack	
	Devin J. Pohly (Pennsylvania State University, USA), Charles Sestito (Pennsylvania State University, USA), Patrick McDaniel (Pennsylvania State University, USA)	342
	Detection of Stealthy TCP-based DoS Attacks	
	Azeem Aqil (University of California, Riverside, USA), Ahmed Fathy Atya (University of California, Riverside, USA), Trent Jaeger (PSU, USA), Srikanth V. Krishnamurthy (University of California, Riverside, USA), Karl Levitt (UC Davis, USA), Patrick McDaniel (Pennsylvania State University, USA), Jeff Rowe (UC Davis, USA), Ananthram Swami (Army Research Lab., USA)	348
Identificat	ion, Authentication and Access Control	
	On Reporting of the Time of Attestation Measurements	
	Peter Kruus (The Johns Hopkins University Applied Physics Laboratory, USA), David Challener (The Johns Hopkins University Applied Physics Laboratory, USA)	354
	Dimensional Reduction Analysis for Physical Layer Device Fingerprints with Application to ZigBee and Z-Wave Devices	
	Trevor Bihl (Air Force Institiute of Technology, USA), Michael A Temple (Air Force Institute of Technology, USA), Kenneth Bauer (Air Force Institute of Technology, USA), Benjamin W. Ramsey (Air Force Institute of Technology, USA)	360
	Evaluating the Capability and Performance of Access Control Policy Verification Tools	
	Ang Li (University of Arkansas, USA), Qinghua Li (University of Arkansas, USA), Vincent Hu (NIST, USA), Jia Di (University of Arkansas, USA)	366
	A Secured Distribution of Server Loads to Clients Hector M Lugo-Cordero (UCF-EECS & UPR-Mayaguez, Puerto Rico), Ratan Guha (University of Central Florida, USA)	372
	Comparison of Parametric and Non-Parametric Statistical Features for Z-Wave Fingerprinting	
	Hiren Patel (Air Force Research Laboratory, USA), Benjamin W. Ramsey (Air Force Institute of Technology, USA)	378

Milcom 2015 Track 2: Milcom 2015 Track 2 - Networking Protocols and Performance

Routing

A Load Balanced Social-Tie Routing Strategy for DTNs Based on Queue Length Control	
Tuan Le (University of California, Los Angeles, USA), Mario Gerla (University of California at Los Angeles, USA)	383
Resilient internetwork routing over heterogeneous mobile military networks	
Lars Landmark (Norwegian Defence Research Establishment (FFI), Norway), Erlend Larsen (Norwegian Defence Research Establishment (FFI), Norway), Mariann Hauge (Norwegian Defence Research Establishment (FFI), Norway), Øivind Kure (Norwegian University of Science and Technology (NTNU), Norway)	388
On the Problem of Routing in Mobile Ad Hoc Wireless Networks with Directional Antennas	
Tyler Ulinskas (Raytheon, USA), Walter Golonka, Jr. (Raytheon, USA), David Duran (Raytheon, USA)	395
Augmenting OLSR with Priority Aware Dynamic Routing for Heterogeneous Networking	
George F Elmasry (Rockwell Collins, USA), Benjamin Haan (Rockwell Collins, USA), Robert McCabe (Rockwell Collins, USA)	401
Inter-domain Routing for Military Mobile Ad-Hoc Networks	
Joy Na Wang (MIT Lincoln Lab, USA), Joshua Van Hook (MIT Lincoln Laboratory, USA), Patricia Deutsch (Riverbed, USA)	407
Cognitive Networks	
Towards a Truthful Online Spectrum Auction with Dynamic Demand and Supply Chowdhury Hyder (Michigan State University, USA), Thomas Jeitschko	
(Michigan State University, USA), Li Xiao (Michigan State University, USA)	413
Low Complexity QoE-aware Bandwidth Allocation for Wireless Content Delivery Harsha Chenji (Ohio University, USA), Zygmunt J. Haas (Cornell University & Wireless Networks Lab, USA), Panfeng Xue (University of Texas at Dallas, USA)	419
Distributed Channel Selection for Hierarchical Cognitive Radio Networks	
Grzegorz Szmit (Polish MoD, Poland), Jerzy Lopatka (Military University of Technology, Poland), Jerzy Dolowski (Military University of Technology, Poland)	426
Enhancement of Spectrum Utilization in Non-Contiguous DSA with Online Defragmentation	
Suman Bhunia (University of Nevada, Reno, USA), Vahid Behzadan (University of Nevada, Reno, USA), Shamik Sengupta (University of Nevada, Reno, USA)	422

	istributed Cognitive Radio Network Architecture, SDR Implementation and mulation Testbed	
	Sohraab Soltani (Intelligent Automation, Inc., USA), Yalin E Sagduyu (Intelligent Automation, Inc., USA), Yi Shi (Intelligent Automation Inc., USA), Jason Hongjun Li (Intelligent Automation Inc., USA), Jared Feldman (Air Force Research Laboratory, USA), John Matyjas (AFRL Rome/NY, USA)	438
Milcom 20 Communic	15 Track 5: Milcom 2015 Track 5 - Selected Topics in cations	
Security of N	letworks	
	itigation of control plane attacks at the network layer	
	Mariusz A Fecko (Applied Communication Sciences (ACS), USA), Kyriakos Manousakis (Applied Communication Sciences, USA), Kenneth Young (Applied Communication Sciences, USA), Jaewon Kang (Applied Communication Sciences, USA), Andrew Pachulski (University of Maryland, College Park, USA), Wayne G. Phoel (DARPA, USA)	444
	xploiting Military OpSec through Open-Source Vulnerabilities	
	Judson Dressler (United States Air Force, USA), Dan Wallach (Rice University, USA), Christopher Bronk (University of Houston, USA)	450
W	itigating Control Plane Attacks on TDMA-based MAC Protocols in Mobile Vireless Networks	
	Jaewon Kang (Applied Communication Sciences, USA), Mariusz A Fecko (Applied Communication Sciences (ACS), USA), Kyriakos Manousakis (Applied Communication Sciences, USA), Kenneth Young (Applied Communication Sciences, USA)	459
	15 Track 4: Milcom 2015 Track 4 - System Perspectives xperiments, Exercises, and Demonstrations	
	n applied model for secure information release between federated military and on-military networks	
	Alberto Domingo (NATO Allied Command Transformation, USA), Hermann Wietgrefe (NATO C&I Agency, The Netherlands)	465
	heory and Development of Cross-Layer Techniques for Localization in nvironments with Extreme Emitter Densities	
	Paul Garver (Georgia Institute of Technology, USA), Randal Abler (Georgia Institute of Technology, USA), Edward Coyle (Georgia Institute of Technology, USA)	471
In	n-System Testing of Xilinx 7-Series FPGAs: Part 1-Logic Harmish Modi (Virginia Tech, Blacksburg, USA), Peter Athanas (Virginia Tech, USA)	
He	eterogeneous network testbed for tactical communication in shore scenario Fulvio Arreghini (CSSN-ITE, Italy), Roberto Agrone (Selex ES, Italy), Paolo Danielli (Selex ES, Italy), Alessandro Pigni (Selex ES, Italy)	
	Danielli (Jelex EJ, Italy), Alessandro i igili (Jelex EJ, Italy)	+0.

Testing Android Devices for Tactical Networks: A Hybrid Emulation Testbed Approach	
Constantin Serban (Applied Communication Sciences, USA), Alexander Poylisher (Applied Communication Sciences, USA), Christopher Sapello (Appliedd Communication Sciences, USA), Yitzchak M. Gottlieb (Applied Communication Sciences, USA), Cho-Yu Jason Chiang (Applied Communication Sciences, USA), Ritu Chadha (Applied Communication Sciences, USA)	. 489
Hardware Implementation of Low-overhead Data Aided Timing and Carrier Frequency Offset Correction for OFDM Signals	
Marko Jacovic (Drexel University, USA), James Chacko (Drexel University, USA), Douglas S Pfeil (Drexel University, USA), Nagarajan Kandasamy (Drexel University, USA), Kapil Dandekar (Drexel University, USA)	495

Milcom 2015 Track 1: Milcom 2015 Track 1 - Waveforms and Signal Processing

Radar, Detection, & Localization 2

Weak Signal Blind Source Separation in Passive Radar System With Strong	
Interference	
Li Chengjie (University of Electronic Science and Technology of China, P.R. China), Lidong Zhu (University of Electronic Science and Technology of China, P.R. China), Anhong Xie (University of Electronic Science and Technology of China, P.R. China), Zhongqiang Luo (University of Electronic Science and Technology of China, P.R. China)	501
Initialized Iterative Reweighted Least Squares for Automatic Target Recognition	
Brian A Millikan (University of Central Florida & Lockheed Martin Corporation, USA), Aritra Dutta (University of Central Florida, USA), Nazanin Rahnavard (University of Central Florida, USA), Qiyu Sun (University of Central Florida, USA), Hassan Foroosh (University of Central Florida, USA)	506
Performance Bounds for an OFDM-Based Joint Radar and Communications	
System	
John Krier (Georgia Institute of Technology, USA), Marissa Norko (Georgia Institute of Technology, USA), Aaron Lanterman (Georgia Tech, USA), Jeremy Reed (GTRI, USA), Robert John Baxley (Bastille, USA), Xiaoli Ma (Georgia Institute of Technology, USA), John Barry (Georgia Institute of Technology, USA)	511
Coherent MIMO Radar Range Imaging with Block Sparse Recovery	
Lorenz Weiland (Technische Universität München, Germany), Thomas Wiese (Technische Universität München, Germany), Wolfgang Utschick (Technische Universität München, Germany)	517
A Joint Detection and Localization Method for Non-Cooperative DS-SS Signals	
Can Uysal (Anadolu University, Turkey), Tansu Filik (Anadolu University, Turkey)	523

Antennas and RF Technology

	Adaptive Calibration of Wideband Digital Beam Formers with Injection Calibration	
	Joshua Bruckmeyer (Harris Corporation & Florida Institute of Technology,	F20
	USA), Ivica N. Kostanic (Florida Institute of Technology, USA)	529
	Power Allocation for Shared and Frequency Hopped Transponder	
	Lan K Nguyen (LinQuest Corporation, USA), Richard B. Wells (University of Idaho, USA), Tho Le-Ngoc (McGill University, Canada)	534
	Decade Bandwidth Agile GaN Power Amplifier Exceeding 50% Efficiency	
	Earl McCune, Jr. (Eridan Communications, USA), Dubravko Babic (Eridan Communications, USA), Rick Booth (Eridan Communications, USA), Douglas Kirkpatrick (Eridan Communications, USA)	541
	Limited Feedback Multi-stage Beam-forming Method for Beyond-Line-of-Sight Ducting Channels	
	Ergin Dinc (Koc University, Turkey), Ozgur B. Akan (Koc University, Turkey)	547
	Distributed Beamforming from Triangular Planar Random Antenna Arrays	
	Nam Nicholas Mai (Defense, USA), Kristopher Buchanan (SSC-Pacific, USA), Jeffrey Jensen (Texas A&M University, USA), Gregory Huff (Texas A&M University, USA)	553
OFDM Te	chniques	
	Francy Efficient Resource Allegation for OFRMA Two Way Relay Naturalis with	
	Energy Efficient Resource Allocation for OFDMA Two-Way Relay Networks with Channel Estimation Error	
	Zheng Chang (University of Jyväskylä, Finland), Qianqian Zhang (Yanshan University, P.R. China), Xijuan Guo (Yan Shan University, P.R. China), Zhenyu Zhou (North China Electric Power University & Waseda University, P.R. China), Tapani Ristaniemi (University of Jyväskylä, Finland)	559
	A Novel MU-MIMO-OFDM Scheme with the RBD Precoding for the Next Generation WLAN	
	Zhanji Wu (BUPT, P.R. China), Xiang Gao (Beijing University of Posts and Telecommunications, P.R. China), Yongtao Shi (BUPT, P.R. China)	565
	Diversity in Synchronization for Scheduled OFDM Time-Division Cooperative Transmission	
	Qiongjie Lin (Georgia Institute of Technology, USA), Mary Ann Weitnauer (Georgia Tech, USA)	570
	Disguised Jamming against OFDM Transmission through Nonlinear Amplify-and- Forward	
	Hao Li (The University of Western Ontario, Canada), Xianbin Wang (Western University, Canada)	576
	On Capacity Merits of Spectrally Efficient FDM	
	David Rainnie (McGill University and CBC, Canada), Yi Feng (McGill University, Canada), Jan Bajcsy (McGill University, Canada)	581
	N-continuous OFDM with CP Alignment	
	Ertugrul Güvenkaya (University of South Florida, USA), Alphan Şahin (InterDigital & University Of South Florida, USA), Huseyin Arslan (University of South Florida, USA)	587

Milcom 2015 Track 5: Milcom 2015 Track 5 - Selected Topics in Communications

Software Communication Architectures

SOA and Wireless Mobile Networks in the Tactical Domain: Results from Experiments	
Marco Manso (Rinicom Ltd., United Kingdom), Jose Maria Alcaraz Calero (University of the West of Scotland & School of Computing, United Kingdom), Peter Paul Meiler (TNO, The Netherlands), Kevin S Chan (US Army Research Laboratory, USA), Christoph Barz (Fraunhofer FKIE, Germany), Ian Owens (Cranfield University & Cranfield Defence & Security, United Kingdom), Joanna Sliwa (Military Communication Institute, Poland), Norman Jansen (Fraunhofer FKIE, Germany), Qi Wang (University of the West of Scotland, United Kingdom), Trude H Bloebaum (Norwegian Defence Research Establishment (FFI), Norway), Garik Markarian (Rinicom Ltd., United Kingdom), Frank T. Johnsen (Norwegian Defence Research Establishment	502
(FFI), Norway)	. 593
Trude H Bloebaum (Norwegian Defence Research Establishment (FFI), Norway), Frank T. Johnsen (Norwegian Defence Research Establishment (FFI), Norway)	. 599
Evaluating publish/subscribe approaches for use in tactical broadband networks	
Trude H Bloebaum (Norwegian Defence Research Establishment (FFI), Norway), Frank T. Johnsen (Norwegian Defence Research Establishment (FFI), Norway)	605

Milcom 2015 Track 3: Milcom 2015 Track 3 - Cyber Security and Trusted Computing

Modeling, Simulation and Analysis in Support of Cyber I

Multinomial Trust in Presence of Uncertainty and Adversaries in DSA networks	
Shameek Bhattacharjee (University of Central Florida, USA), Mainak Chatterjee (University of Central Florida, USA), Kevin Kwiat (Air Force Research Laboratory, USA), Charles A Kamhoua (Air Force Research Laboratory & Information Directorate, USA)	611
IPCA for Network Anomaly Detection	
Athanasios Delimargas (Carleton University, Greece), Emmanouil Skevakis (Carleton University, Canada), Hassan Halabian (Ericsson Canada, Canada), Ioannis Lambadaris (Carleton University, Canada), Nabil Seddigh (Solana Networks, Canada), Biswajit Nandy (Solana Networks & Carleton University, Canada), Rupinder Makkar (Solana Networks, Canada)	617
Cyber Reasoning with Argumentation: Abstracting From Incomplete and Contradictory Evidence	
Andy Applebaum (University of Davis, California, USA), Karl Levitt (UC Davis, USA), Zimi Li (City University of New York, USA), Simon Parsons (University of Liverpool, United Kingdom), Jeff Rowe (UC Davis, USA), Elizabeth Sklar (University of Liverpool, United Kingdom)	623

On Modeling of Adversary Behavior and Defense for Survivabilit MANET Applications	y of Military
Ing-Ray Chen (Virginia Tech, USA), Robert Mitchell (Sandia Nation USA), Jin-Hee Cho (Army Research Laboratory, USA)	
A Testbed for Modeling and Detecting Attacks on NFC Enabled Mobil	
Kimberly Gold (Tennessee State University, USA), Sachin Shetty (State University, USA), Tamara Rogers (Tennessee State Universi	
trustd: Trust Daemon Experimental Testbed for Network Emulation	
Kevin S Chan (US Army Research Laboratory, USA), Jin-Hee Cho Research Laboratory, USA), Theron T Trout (Independent, USA), Wampler (INCA Engineering & Innovative Networking and Commu Associates, Inc., USA), Andrew Toth (US Army Research Laborato	Jason Inications
Brian Rivera (US Army Research Laboratory, USA)	641
Cyber Attacks and Countermeasures I	
Countermeasure Technique to Combat Greedy Behavior in Ad-I Networks	noc Wireless
Joseph Soryal (The City College of New York - CUNY, USA), Tarek (The City University of New York/The City College, USA)	
No Time to Demodulate - Fast Physical Layer Verification of Friendly Wenbo Shen (North Carolina State University, USA), Yao Liu (University, Horida, USA), Xiaofan He (North Carolina State University, Huaiyu Dai (NC State University, USA), Peng Ning (North Carolina University, USA)	versity of USA), a State
An SDN-Supported Collaborative Approach for DDoS Flooding D Containment	
Tommy Chin, Jr (Rochester Institute of Technology, USA), Xenia Mountrouidou (Wofford College, USA), Xiangyang Li (Johns Hopkii University, USA), Kaiqi Xiong (Rochester Institute of Technology,	
Parallel Active Dictionary Attack on WPA2-PSK Wi-Fi Networks	
Omar Nakhila (University of Central Florida, USA), Afraa Attiah (U Central Florida, USA), Yier Jin (University of Central Florida, USA) (University of Central Florida, USA)	, Cliff Zou
Stealthy Edge Decoy Attacks Against Dynamic Channel Assignmen Networks	t in Wireless
Ahmed Anwar (University of Central Florida, USA), Janiece Kelly (University, USA), George Atia (University of Central Florida, USA) Guirguis (Texas State University, USA)	, Mina

Milcom 2015 Track 2: Milcom 2015 Track 2 - Networking Protocols and Performance

Cellular Networks

	CSI-Unaware Scheduling for Coexistence of MIMO-OFDMA Device-to-Device Links and Cellular Mobile Terminals	
	Amitav Mukherjee (Ericsson Research, USA), Wenhao Xiong (Wichita State University, USA), Hyuck Kwon (Wichita State University, USA)	677
	A New Approach in LTE-A Downlink Power and Transport Block Management	
	Bilal Rabah Al-Doori (University of Arkansas at Little Rock, USA), Xian Liu (University of Arkansas at Little Rock, USA)	683
	A New User Scheduling Scheme in LTE/LTE-A Networks Using Cross-layer Design Approach	
	Gbolahan R Aiyetoro (Mangosuthu University of Technology, South Africa), Fambirai Takawira (University of the Witwatersrand, South Africa)	689
	Wireless mesh backhauling for LTE/LTE-A networks	
	Romain Favraud (EURECOM & DCNS, France), Navid Nikaein (Eurecom,	
	France)	695
	Network Coding for Cooperative Mobile Devices with Multiple Interfaces	
	Yasaman Keshtkarjahromi (University of Illinois at Chicago (UIC), USA), Hulya Seferoglu (University of Illinois at Chicago, USA), Rashid Ansari	
	(University of Illinois at Chicago, USA), Ashfaq Khokhar (Illinois Institute of Technology, USA)	701
	A Secure Geographical Routing Protocol for Highly-Dynamic Aeronautical Networks	
	Amir Swidan (Alexandria University, Egypt), Sherif Khattab (Faculty of Computers and Information, Cairo University, Egypt), Yasmine Abouelseoud (Alexandria University, Egypt), Hassan Elkamchouchi (Faculty of Engineering,	
Performan	Egypt)ce Optimization	700
	An Optimized Link Scheduling Technique for Mobile Ad Hoc Networks Using Directional Antennas	
	Yifeng Zhou (Communications Research Centre, Canada), Yudong Fang (Communications Research Centre, Canada), Mike Tanguay (National Defence Canada, Canada)	714
	Leveraging Martingales for Robust Cognitive Radio Transmission Control	,
	Deborah Duran-Herrmann (University of Nebraska-Lincoln, USA), Yaoqing (Lamar) Yang (University of Nebraska-Lincoln, USA)	720
	HMS: Holistic MPR Selection and Network Connectivity for Tactical Edge Networks	
	Ronggong Song (DRDC-Ottawa, Canada), David Brown (DRDC, Canada), Peter C Mason (Defence Research & Development Canada, Canada), Mazda Salmanian (Defence R&D Canada, Canada), Helen Tang (DRDC Ottawa, Canada)	726
	-unau	, _ (

Quantifying the Impact of Routing and Scheduling on Throughput for Wireless Networks	
Jun Sun (MIT Lincoln Lab, USA), Thomas Shake (MIT Lincoln Laboratory, USA), Gregory Kuperman (MIT Lincoln Laboratory, USA), Joshua Van Hook (MIT Lincoln Laboratory, USA), Aradhana Narula-Tam (MIT Lincoln Laboratory, USA)	732
A Distributed, Multi-tiered Network Agent for Heterogeneous MANET Resource Optimization	
George F Elmasry (Rockwell Collins, USA), Brian Aanderud (Rockwell Collins, USA), Timothy Arganbright (Rockwell Collins, USA)	738
Milcom 2015 Track 5: Milcom 2015 Track 5 - Selected Topics in Communications	
Channel Modeling and Measurement	
Cluster-based Analysis of 3D MIMO Channel Measurement in an Urban Environment	
Seun Sangodoyin (University of Southern California, USA), Vinod Kristem (University of Southern California, USA), C. Umit Bas (University of Southern California, USA), Martin Käske (Ilmenau University of Technology, Germany), Juho Lee (Samsung Electronics. Co., Ltd, Korea), Christian Schneider (Ilmenau University of Technology, Germany), Gerd Sommerkorn (Ilmenau University of Technology, Germany), Jianzhong Zhang (Samsung, USA), Reiner S. Thomä (Ilmenau University of Technology, Germany), Andreas Molisch (University of Southern California, USA)	744
Atmospheric Models For Over-Ocean Propagation Loss	
Bruce F. McGuffin (MIT Lincoln Laboratory, USA)	750
Milcom 2015 Track 4: Milcom 2015 Track 4 - System Perspectives Airborne Networks	
Nature Inspired Collaborative Team Autonomy (NICiTA) Siun-Chuon Mau (Self-Employed, USA), Latha Kant (Applied Communication Sciences (ACS) - Formerly Telcordia Technologies, ATS, USA), Gi Tae Kim (Applied Communication Sciences, USA), Ritu Chadha (Applied Communication Sciences, USA)	756
DYNAMICS: Inverse Mission Planning for Dedicated Aerial Communications Platforms	
Barry Trent (Architecture Technology Corporation, USA), Fabio Pozzo (Architecture Technology Corporation, USA), Ranga Ramanujan (Architecture Technology Corporation, USA), Rob Riley (AFRL, USA), Patrick O'Neill (AFRL, USA), Clif Banner (USAF Life Cycle Management Center Program Executive Office for C3I & Networks & Space, Aerial & Nuclear Networks Division AFLCMC/HNAA - P3I, Inc. ETASS, USA), Gregory Heinen (AFLCMC/HNAA, USA)	762

Antenna Assignment for JALN HCB	
Peng Wang (NRC PostDoc, USA), Brian Henz (US Army Research Laboratory, USA)	768
BioAIR: Bio-inspired Airborne Infrastructure Reconfiguration	
Bo Ryu (EpiSys Science, USA), Nadeesha Ranasinghe (EpiSci, USA), Wei-Min Shen (Information Sciences Institute, USA), Kurt Turck (Air Force Research Laboratory, USA), Michael Muccio (Air Force Research Laboratory, USA)	774
BioAIM: Bio-inspired Autonomous Infrastructure Monitoring	
Bo Ryu (EpiSys Science, USA), Nadeesha Ranasinghe (EpiSci, USA), Wei-Min Shen (Information Sciences Institute, USA), Kurt Turck (Air Force Research Laboratory, USA), Michael Muccio (Air Force Research Laboratory, USA)	780
Distributed and Dynamic Spectrum Management in Airborne Networks	
Zhichuan Huang (University of Maryland, Baltimore County, USA), David W Corrigan (State University of New York at Binghamton, USA), Sandeep Narayanan (University of Maryland, Baltimore County, USA), Ting Zhu (University of Maryland, Baltimore County, USA), Elizabeth Bentley (AFRL, USA), Michael Michael Medley (AFRL, USA)	786
557.jj - 1161.doi - 11	, 50

Milcom 2015 Track 1: Milcom 2015 Track 1 - Waveforms and Signal Processing

Coding, Equalization, & Estimation

Tracking A Dynamic Sparse Channel Via Differential Orthogonal Matching Pursuit	
Xudong Zhu (Tsinghua University, P.R. China), Linglong Dai (Tsinghua University, P.R. China), Wei Dai (Imperial College, United Kingdom), Zhaocheng Wang (Tsinghua University, P.R. China), Marc Moonen (KU Leuven, Belgium)	792
Temporal Correlation Based Sparse Channel Estimation for TDS-OFDM in High- Speed Scenarios	
Zhen Gao (Tsinghua University, P.R. China), Linglong Dai (Tsinghua University, P.R. China), Wenqian Shen (Tsinghua University, P.R. China), Zhaocheng Wang (Tsinghua University, P.R. China)	798
Turbo equalization for waveforms encoded by Reed Solomon codes	
Wenwen Wang (NTU, Singapore), Yong Liang Guan (Nanyang Technological University, Singapore), Ping Yang (University of Electronic Science and Technology of China, P.R. China), Xiao Bei Liu (Nanyang Technological University, Singapore)	804
Adaptive Blind Equalizers with Whitening Filters	
Wei-Chieh Chang (Fu Jen Catholic University, Taiwan), Jenq-Tay Yuan (Fu Jen Catholic University, Taiwan)	809
On the Symmetric Information Rate of CPM in the Finite Blocklength Regime	
Cenk Sahin (University of Kansas, USA), Erik S. Perrins (University of Kansas, USA)	815
Complementary Code Pairs that Share the Same Bandwidth via Symmetrical Linear FM Chips	
Adly T. Fam (University at Buffalo, USA), Ravi Kadlimatti (University at Buffalo, USA)	820

Frequency Hopped Systems

	Efficient Implementation of Multicarrier Frequency Hopping Receiver via Polyphase Channelizer	
	Frederic j harris (San Diego State Univ, USA), Xiaofei Chen (San Diego State University, USA), Elettra Venosa (Space Micro, USA)	826
	Polyphase Up Converter Channelizers enable Fully Digital Multi-Carrier Frequency	. 020
	Hopping Modulators	
	Frederic j harris (San Diego State Univ, USA), Elettra Venosa (Space Micro, USA), Xiaofei Chen (San Diego State University, USA)	. 831
	Code Selection Approach for Partitioned Cyclic Code Shift Keying to Improve Multinet Capability	
	Hong Jun Noh (LIG Nex1, Korea), Jepung Yu (Ajou University, Korea), Kyuman Lee (Ajou University, Korea), Jae Sung Lim (Ajou University, Korea)	. 836
	Suboptimum Maximum-likelihood Receivers over Rayleigh Fading Channels with Imperfect CSI	
	Yishan He (University of Electronic Science and Technology of China, P.R. China), Yufan Cheng (University of Electronic Science and Technology of China, P.R. China), Gang Wu (University of Electronic Science and Technology of China, P.R. China), Binhong Dong (University of Electronic Science and Technology of China, P.R. China), Shaoqian Li (University of Electronic Science and Technology of China, P.R. China)	. 842
	Performance analysis of frequency-hopping ad hoc networks with random dwell-time under follower jamming	
	Anders Hansson (Swedish Defence Research Agency, Sweden), Jan Nilsson (Swedish Defence Research Agency, Sweden), Kia Wiklundh (Swedish Defence Research Agency, Sweden)	. 848
	Optimization of an Adaptive Frequency-Hopping Network	
	Salvatore Talarico (West Virginia University, USA), Matthew Valenti (West Virginia University, USA), Don Torrieri (US Army Research Laboratory, USA)	. 854
MIMO Cor	mmunications	
	Performance of Frequency Hopping D-BLAST MIMO Architecture using LDPC and BPSK	
	Janek Mroczek (Air Force Research Laboratory, USA), Michael Gans (Air Force Research Laboratory, USA), Laurie Joiner (University of Alabama, USA)	. 860
	Capacity Analysis of Lattice Reduction Aided Equalizers for MIMO Systems	
	Xiaoli Ma (Georgia Institute of Technology, USA), Yiming Kong (Georgia Institute of Technology, USA)	. 866
	Power-Efficient Distributed Beamforming for Multiple Full-Duplex MIMO Relays	
	Xiaofei Xu (Tsinghua University, P.R. China), Ming Zhao (Tsinghua University, P.R. China), Limin Xiao (Tsinghua University, P.R. China), Xiang Chen (Sun Yat-sen University, P.R. China), Shidong Zhou (Tsinghua University, P.R. China), Jing Wang (EE. Tsinghua University, P.R. China)	. 872
	Energy-Efficient Transmission for Linearly Precoded MIMO Systems	_
	Jun Chen (University of Notre Dame, USA), Thomas Pratt (University of Notre Dame, USA)	878

Wishart-Matrix Based Blind Estimation of Transmit-Antenna Number for Non- Collaborated MIMO Systems	
Yongzhao Li (Xidian University, P.R. China), Tao Li (Xidian University & State Key Laboratory of Integrated Services Networks, P.R. China), Mei-xia Hu (Xidian University, P.R. China), Jianhua Hu (Xidian University, P.R. China), Hailin Zhang (Xidian University, P.R. China)	884
Milcom 2015 Track 5: Milcom 2015 Track 5 - Selected Topics in Communications	
Planning and Assessment	
The U.S. Army and Network-Centric Warfare: A thematic analysis of the literature	
Harry D. Tunnell, IV (IUPUI, USA)	889
A Template Based Approach to Specifying the Information Needs of Military Missions	
Joseph P. Loyall (BBN Technologies, USA), Nathaniel Soule (BBN Technologies, USA), Jeffrey Cleveland (BBN Technologies, USA), Andrzej Uszok (Florida Institute for Human & Machine Cognition, USA), Larry Bunch (Florida Institute for Human & Machine Cognition, USA), James Milligan (US	
Milcom 2015 Track 3: Milcom 2015 Track 3 - Cyber Security and Tru	
Computing	
Detection and Analysis of Anomolies and Threats	
Spy vs. Spy: Camouflage-based Active Detection in Energy Harvesting Motivated Networks	
Cong Pu (Texas Tech University, USA), Sunho Lim (Texas Tech University, USA)	903
On Detection and Concealment of Critical Roles in Tactical Wireless Networks	
Zhuo Lu (University of Memphis, USA), Cliff Wang (Army Research Office, USA), Mingkui Wei (North Carolina State University, USA)	909
Use of Machine Learning in Big Data Analytics for Insider Threat Detection	
Michael Mayhew (Air Force Research Labs, USA), Michael Atighetchi (BBN Technologies, USA), Aaron Adler (Raytheon BBN Technologies, USA), Rachel Greenstadt (Drexel University, USA)	915
Using Artificial Packets for Training Network Payload Anomaly Detection Systems	
Chockalingam Karuppanchetty (University of Alabama in Huntsville, USA), William Edmonds (University of Alabama in Huntsville, USA), Sun-il Kim	
(University of Alabama in Huntsville, USA)	923

A Diagnosis Based Intrusion Detection Approach	
Karl Levitt (UC Davis, USA), Jeff Rowe (UC Davis, USA), Srikanth V. Krishnamurthy (University of California, Riverside, USA), Trent Jaeger (PSU, USA), Ananthram Swami (Army Research Lab., USA), Connor Jackson (University of California, Davis, USA)	29
Trust Management in Cross Domain Operations	
Anders Fongen (Norwegian Defense Research Establishment, Norway)	35
Cyber Attacks and Countermeasures II	
Agent-based Channel Selection Scheme against Location Inference Attack in Cognitive Radio Networks	
Hongning Li (Xidian University, P.R. China), Qingqi Pei (Xidian University, P.R. China), Yao Liu (University of South Florida, USA)	41
Achieving Secure Friend Discovery in Social Strength-Aware PMSNs	
Ben Niu (State Key Laboratory of Information Security, Institute of Information Engineering, CAS, P.R. China), Yuanyuan He (State Key Laboratory of Information Security, Institute of Information Engineering, CAS, P.R. China), Fenghua Li (State Key Laboratory of Information Security, Institute of Information Engineering, CAS, P.R. China), Hui Li (Xidian	
University, P.R. China)9	47
The KPLT: The Kernel as a Shared Object	
Scott Brookes (Dartmouth College, USA), Martin Osterloh (Dartmouth College, USA), Robert Denz (Dartmouth College, USA), Stephen Taylor (Dartmouth College, USA)	54
Relay Selection for Optimal Delay Anonymity Tradeoff in Anonymous Networks	
Omid Javidbakht (Lehigh University, USA), Parv Venkitasubramaniam (Lehigh University, USA)	60
Operational Cost of Deploying Moving Target Defenses: Defensive Work Factors Brian Van Leeuwen (Sandia National Laboratories, USA), William M.S. Stout (Sandia National Laboratories & University of New Mexico, USA), Vincent Urias (Sandia National Laboratories, USA)	66
A Cross-Layer Defense Scheme for Countering Traffic Analysis Attacks in Wireless Sensor Networks	
Jon R. Ward (The Johns Hopkins University, USA), Mohamed Younis (University of Maryland Baltimore County, USA)9	72
Milcom 2015 Track 2: Milcom 2015 Track 2 - Networking Protocols and Performance Topology Control	ļ
An Optimal Jamming Strategy to Partition a Wireless Network Jixin Feng (University of Florida, USA), Eduardo L Pasiliao, Jr. (US AFRL Munitions Directorate, USA), Warren Dixon (University of Florida, USA), John M. Shea (University of Florida, USA)	78

	Clustering and Frequency Allocation in Frequency Hopping Tactical Networks	
	Ravshan Aziz (TOBB University of Economics and Technology, Turkey), Gökhan Kılıç (TOBB University of Economics and Technology, Turkey), Tolga	
	Girici (TOBB University of Economics and Technology, Turkey), Tolga Numanoglu (ASELSAN INC., Turkey), Güven Yenihayat (ASELSAN Inc.,	
	Turkey), Halime Koca (Aselsan Inc., Turkey)	985
	An Implementation of a Flexible Topology Management System for Aerial High Capacity Directional Networks	
	Joy Na Wang (MIT Lincoln Lab, USA), Patricia Deutsch (Riverbed, USA),	
	Andrea Coyle (MIT Lincoln Laboratory, USA), Thomas Shake (MIT Lincoln Laboratory, USA), Bow-Nan Cheng (MIT Lincoln Laboratory, USA)	991
	Cross-layer Framework and Condition-based Topology Control for Contested Environments	
	Mitesh Patel (US Army CERDEC STCD, USA), Latha Kant (Applied	
	Communication Sciences (ACS) - Formerly Telcordia Technologies, ATS, USA), John Lee (Applied Communication Sciences, USA), Gi Tae Kim (Applied	
	Communication Sciences, USA), Robert Miller (Applied Communication	
	Sciences, USA), Sharon Mackey (CERDEC Space & Terrestrial	
	Communications Directorate, USA), Derya Cansever (Army CERDEC, USA),	
	Siamak Samoohi (US Army CEDEC, USA), Frank Panettieri (US Army CERDEC, USA)	997
	Internetworking Service Architecture for Transporting Mission-Critical Data Over Heterogeneous Subnetworks with Probabilistic Guarantees	557
	Matthew F Carey (Massachusetts Institute of Technology, USA), Vincent Chan (Massachusetts Institute of Technology, USA)	1002
	(Massachusetts Institute of Technology, OSA)	
	(Massachusetts Institute of Technology, OSA)	
Sensor Net	tworks and Security	
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China),	
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang	
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R.	
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China)	
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R.	
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China) On the Smallest Pseudo Target Set Identification Problem for Targeted Attack on	
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China) On the Smallest Pseudo Target Set Identification Problem for Targeted Attack on Interdependent Power-Communication Networks Arun Das (Arizona State University, USA), Chenyang Zhou (Arizona State University, USA),	
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China) On the Smallest Pseudo Target Set Identification Problem for Targeted Attack on Interdependent Power-Communication Networks Arun Das (Arizona State University, USA), Chenyang Zhou (Arizona State University, USA), Arunabha Sen (ASU, USA), Lloyd Greenwald (LGS Innovations / Bell Labs,	1009
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China) On the Smallest Pseudo Target Set Identification Problem for Targeted Attack on Interdependent Power-Communication Networks Arun Das (Arizona State University, USA), Chenyang Zhou (Arizona State University, USA), Joydeep Banerjee (Arizona State University, USA), Arunabha Sen (ASU, USA), Lloyd Greenwald (LGS Innovations / Bell Labs, USA) Bandwidth-aware Breach-free Barrier Construction with VANET nodes for	1009
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China) On the Smallest Pseudo Target Set Identification Problem for Targeted Attack on Interdependent Power-Communication Networks Arun Das (Arizona State University, USA), Chenyang Zhou (Arizona State University, USA), Joydeep Banerjee (Arizona State University, USA), Arunabha Sen (ASU, USA), Lloyd Greenwald (LGS Innovations / Bell Labs, USA) Bandwidth-aware Breach-free Barrier Construction with VANET nodes for Realtime Fugitive Search	1009
	Atworks and Security How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China) On the Smallest Pseudo Target Set Identification Problem for Targeted Attack on Interdependent Power-Communication Networks Arun Das (Arizona State University, USA), Chenyang Zhou (Arizona State University, USA), Joydeep Banerjee (Arizona State University, USA), Arunabha Sen (ASU, USA), Lloyd Greenwald (LGS Innovations / Bell Labs, USA) Bandwidth-aware Breach-free Barrier Construction with VANET nodes for Realtime Fugitive Search Donghyun Kim (North Carolina Central University, USA), Junggab Son (North Carolina Central University, USA), Wei Wang (Xi'an Jiaotong University, P.R.	1009
	Attack on Interdependent Power-Communication Networks Arun Das (Arizona State University, USA), Arunabha Sen (ASU, USA), Lloyd Greenwald (LGS Innovations / Bell Labs, USA) Bandwidth-aware Breach-free Barrier Construction with VANET nodes for Realtime Fugitive Search Donghyun Kim (North Carolina Central University, USA), Junggab Son (North Carolina Central University, USA), Wei Wang (Xi'an Jiaotong University, P.R. China), Deying Li (Renmin University of China, P.R. China), Alade Tokuta	1009
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China) On the Smallest Pseudo Target Set Identification Problem for Targeted Attack on Interdependent Power-Communication Networks Arun Das (Arizona State University, USA), Chenyang Zhou (Arizona State University, USA), Joydeep Banerjee (Arizona State University, USA), Arunabha Sen (ASU, USA), Lloyd Greenwald (LGS Innovations / Bell Labs, USA) Bandwidth-aware Breach-free Barrier Construction with VANET nodes for Realtime Fugitive Search Donghyun Kim (North Carolina Central University, USA), Junggab Son (North Carolina Central University, USA), Wei Wang (Xi'an Jiaotong University, P.R. China), Deying Li (Renmin University of China, P.R. China), Alade Tokuta (North Carolina Central University, USA), Sunghyun Cho (Hanyang University,	1009
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China) On the Smallest Pseudo Target Set Identification Problem for Targeted Attack on Interdependent Power-Communication Networks Arun Das (Arizona State University, USA), Chenyang Zhou (Arizona State University, USA), Joydeep Banerjee (Arizona State University, USA), Arunabha Sen (ASU, USA), Lloyd Greenwald (LGS Innovations / Bell Labs, USA) Bandwidth-aware Breach-free Barrier Construction with VANET nodes for Realtime Fugitive Search Donghyun Kim (North Carolina Central University, USA), Junggab Son (North Carolina Central University, USA), Wei Wang (Xi'an Jiaotong University, P.R. China), Deying Li (Renmin University of China, P.R. China), Alade Tokuta (North Carolina Central University, USA), Sunghyun Cho (Hanyang University, Korea)	1009
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China) On the Smallest Pseudo Target Set Identification Problem for Targeted Attack on Interdependent Power-Communication Networks Arun Das (Arizona State University, USA), Chenyang Zhou (Arizona State University, USA), Joydeep Banerjee (Arizona State University, USA), Arunabha Sen (ASU, USA), Lloyd Greenwald (LGS Innovations / Bell Labs, USA) Bandwidth-aware Breach-free Barrier Construction with VANET nodes for Realtime Fugitive Search Donghyun Kim (North Carolina Central University, USA), Junggab Son (North Carolina Central University, USA), Wei Wang (Xi'an Jiaotong University, P.R. China), Deying Li (Renmin University of China, P.R. China), Alade Tokuta (North Carolina Central University, USA), Sunghyun Cho (Hanyang University, Korea) WiEnum: Node Enumeration in Wireless Networks	1009
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China) On the Smallest Pseudo Target Set Identification Problem for Targeted Attack on Interdependent Power-Communication Networks Arun Das (Arizona State University, USA), Chenyang Zhou (Arizona State University, USA), Joydeep Banerjee (Arizona State University, USA), Arunabha Sen (ASU, USA), Lloyd Greenwald (LGS Innovations / Bell Labs, USA) Bandwidth-aware Breach-free Barrier Construction with VANET nodes for Realtime Fugitive Search Donghyun Kim (North Carolina Central University, USA), Junggab Son (North Carolina Central University, USA), Wei Wang (Xi'an Jiaotong University, P.R. China), Deying Li (Renmin University of China, P.R. China), Alade Tokuta (North Carolina Central University, USA), Sunghyun Cho (Hanyang University, Korea)	1015
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China) On the Smallest Pseudo Target Set Identification Problem for Targeted Attack on Interdependent Power-Communication Networks Arun Das (Arizona State University, USA), Chenyang Zhou (Arizona State University, USA), Joydeep Banerjee (Arizona State University, USA), Arunabha Sen (ASU, USA), Lloyd Greenwald (LGS Innovations / Bell Labs, USA) Bandwidth-aware Breach-free Barrier Construction with VANET nodes for Realtime Fugitive Search Donghyun Kim (North Carolina Central University, USA), Junggab Son (North Carolina Central University, USA), Wei Wang (Xi'an Jiaotong University, P.R. China), Deying Li (Renmin University of China, P.R. China), Alade Tokuta (North Carolina Central University, USA), Sunghyun Cho (Hanyang University, Korea) WiEnum: Node Enumeration in Wireless Networks Abhimanyu V Sheshashayee (Northeastern University, USA), Stefano Basagni	1015
	How to Get Group Key Efficiently in Mobile Ad Hoc Networks? Xiaozhuo Gu (Institute of Information Engineering, CAS, P.R. China), Zhenhuan Cao (Gansu Information Center, P.R. China), Yongming Wang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China) On the Smallest Pseudo Target Set Identification Problem for Targeted Attack on Interdependent Power-Communication Networks Arun Das (Arizona State University, USA), Chenyang Zhou (Arizona State University, USA), Joydeep Banerjee (Arizona State University, USA), Arunabha Sen (ASU, USA), Lloyd Greenwald (LGS Innovations / Bell Labs, USA) Bandwidth-aware Breach-free Barrier Construction with VANET nodes for Realtime Fugitive Search Donghyun Kim (North Carolina Central University, USA), Junggab Son (North Carolina Central University, USA), Wei Wang (Xi'an Jiaotong University, P.R. China), Deying Li (Renmin University of China, P.R. China), Alade Tokuta (North Carolina Central University, USA), Sunghyun Cho (Hanyang University, Korea) WiEnum: Node Enumeration in Wireless Networks Abhimanyu V Sheshashayee (Northeastern University, USA), Stefano Basagni (Northeastern University, USA)	1009 1015 1021

Collision-Aware Distributed Estimation in WSNs using Sensor-Censoring Random	
Access	
Seksan Laitrakun (Mae Fah Luang University, Thailand), Edward Coyle (Georgia Institute of Technology, USA)	. 1039
Milcom 2015 Track 5: Milcom 2015 Track 5 - Selected Topics in Communications	
Mobile Cloud Computing	
Emulation-Based Study of Dynamic Service Placement in Mobile Micro-Clouds	
Shiqiang Wang (Imperial College London, United Kingdom), Kevin S Chan (US Army Research Laboratory, USA), Rahul Urgaonkar (Amazon, USA), Ting He	1046
(IBM Research, USA), Kin K. Leung (Imperial College, United Kingdom)	. 1046
Petr Novotny (Imperial College London, United Kingdom), Rahul Urgaonkar (Amazon, USA), Bong Jun Ko (IBM T.J. Watson Research Center, USA),	
Alexander Wolf (Imperial College London, United Kingdom)	. 1052
Ertugrul Necdet Ciftcioglu (IBM Research, USA), Kevin S Chan (US Army Research Laboratory, USA), Rahul Urgaonkar (Amazon, USA), Shiqiang Wang (Imperial College London, United Kingdom), Ting He (IBM Research, USA)	. 1058
Enhancing Dependability Through Redundancy in Military Vehicular Clouds Ryan Florin (Old Dominion University, USA), Puya Ghazizadeh (Millersville	
University, USA), Aida Ghazi Zadeh (Old Dominion University, USA), Stephan Olariu (Old Dominion University, USA)	. 1064
Experimental Evaluation of the Age of Information via Emulation Clement Kam (Naval Research Laboratory, USA), Sastry Kompella (Naval	
Research Laboratory, USA), Anthony Ephremides (University of Maryland at College Park, USA)	1070
<i>5</i> , ,	
Milcom 2015 Track 4: Milcom 2015 Track 4 - System Perspectives	
System Modeling and Simulations	
CAST - RCS Tool for Modelling Versatile Size Targets	
Seppo Horsmanheimo (VTT Technical Research Centre of Finland Ltd, Finland), Arto Hujanen (VTT Technical Research Centre of Finland, Finland), Lotta Tuomimäki (VTT Technical Research Centre of Finland, Finland), Jarkko Kylmälä (Finnish Defence Research Agency, Finland), Markku Kujala (Naval Academy of Finland, Finland)	1076
Weather Influence on communication links operating in frequencies over 10 GHz in the Interandean zones of the Ecuadorian country	_ 3, 0
Eddie E Galarza (Universidad de las Fuerzas Armadas ESPE, Ecuador), Cesar	1081

Tactical Network Modeller Simulation Tool	
Stuart Marsden (National Defence University of Finland & Finmars Consulting Ltd, Finland), Jouko Vankka (Department of Military Technology & National Defence University, Finland)	1087
A Tactical Network Optimization Engine Using Simulation	
Dell Kronewitter (Fuse Integration, USA)	1093
An Approach to Data Correlation using JC3IEDM Model	
Luciene Souza (CASNAV, Brazil), Wallace A Pinheiro (CDS, Brazil)	1099
Enabling Cognition on Electronic CounterMeasure Systems against Next- Generation Radars	
Muharrem Arik (Koc University & ASELSAN Inc., Turkey), Ozgur B. Akan (Koc University, Turkey)	1103

Milcom 2015 Track 1: Milcom 2015 Track 1 - Waveforms and Signal Processing

Modulation & Detection

Charrelation Matrix Based Blind Identification of Underdetermined Mixtures	
Zhongqiang Luo (University of Electronic Science and Technology of China, P.R. China), Lidong Zhu (University of Electronic Science and Technology of China, P.R. China), Li Chengjie (University of Electronic Science and Technology of China, P.R. China)	1109
Detection of Single Carrier Transmission in Frequency Selective Fading Channels with Symmetric Alpha-Stable Noise	
Ping Yang (University of Electronic Science and Technology of China, P.R. China), Yong Liang Guan (Nanyang Technological University, Singapore), Xiao Bei Liu (Nanyang Technological University, Singapore), Wenwen Wang (NTU, Singapore)	1114
A log-likelihood ratio for improved receiver performance for VLF/LF communication in atmospheric noise	
Kia Wiklundh (Swedish Defence Research Agency, Sweden), Karina Fors (Swedish Defence Research Agency, Sweden), Peter Holm (FOI, Sweden)	1120
Communication over Non-Gaussian Channels Part I: Mutual Information and Optimum Signal Detection	
Ramesh Annavajjala (Draper Laboratory, USA), Christopher Yu (The Charles Stark Draper Laboratory, USA), James Zagami (The Charles Stark Draper Laboratory, USA)	1126
Communication over Non-Gaussian Channels Part II: Channel Estimation, Mismatched Receivers, and Error Performance with Coding	
Ramesh Annavajjala (Draper Laboratory, USA), Christopher Yu (The Charles Stark Draper Laboratory, USA), James Zagami (The Charles Stark Draper Laboratory, USA)	1132
Gabor Filter Approximation Based on New Evolutionary Stochastic PSO and DE techniques	
Abigail Fuentes-Rivera (University of Central Florida & University of Puerto Rico at Mayaguez, USA), Mingjie Lin (University of Central Florida, USA), Hector M Lugo-Cordero (UCF-EECS & UPR-Mayaguez, Puerto Rico)	1138

Wireless Networking

Broadcast File Distribution in a Four-Node Packet Radio Network With Coding and Code-Modulation Adaptation	h Network
Siddhartha S Borkotoky (Clemson University, USA), Michael Pursley University, USA)	
Computational Challenges of Dynamic Channel Assignment for Military	
Paul Nicholas (United States Marine Corps & Operations Analysis Div USA), Karla Hoffman (George Mason University, USA)	
Initial Acquisition for MANET with Simultaneous Transmissions	
Yi Jiang (Silvus Technologies, USA), Babak Daneshrad (University of California, Los Angeles, USA), Gregory Pottie (University of California Angeles, USA)	a at Los
Bandwidth and Power Constrained Distributed Vector Estimation in Sensor Networks	
Alireza Sani (University of Central Florida, USA), Azadeh Vosoughi (Uof Central Florida, USA)	1164
Design of User Clustering and Precoding for Downlink Non-orthogonal Access (NOMA)	·
Jongmok Kim (Korea Advanced Institute of Science and Technology, Jeongwan Koh (Korea Advanced Institute of Science and Technology, Jinkyu Kang (Korea Advanced Institute of Science and Technology, k Kwang-Eog Lee (Agency for Defense Development, Korea), Joonhyul (KAIST, Korea)	, Korea), Korea), k Kang
Non-Orthogonal Multiple Access with Weighted Sum-Rate Optimize Downlink Broadcast Channel	zation for
Xiaofang Sun (Beijing Jiaotong University, P.R. China), Deborah Dur Herrmann (University of Nebraska-Lincoln, USA), Zhangdui Zhong (B Jiaotong University, P.R. China), Yaoqing (Lamar) Yang (University of Nebraska-Lincoln, USA)	Beijing of
System Performance	
Improved Error Correction for Stanag 4539 appendix H proposal: HF X	L
Catherine Lamy-Bergot (Thales Communications & Security, France) Baptiste Chantelouve (THALES Communications & Security, France), Rogier (Thales Communications & Security, France), Hélène Diakhat Communications & Security, France), Benoit Gouin (Thales Commun Security, France)	Jean-Luc é (Thales ications &
Packet Error Rate Analysis of IM/DD Systems for Ultraviolet Communications	Scattering
Changming Xu (Tsinghua University, P.R. China), Hongming Zhang (Department of Electronic Engineering, Tsinghua University, P.R. Chi	•
End-to-End Tracking Performance for the Enhanced Polar System (EPS	-
Lan K Nguyen (LinQuest Corporation, USA), Ryan Vorwerk (LinQuest Corporation, USA)	
Over-the-air Performance of Spectrally-efficient CDMA Signature Sets	
Anu Saji (ANDRO Computational Solutions, LLC, USA), James Bohl (Computational Solutions, LLC, USA), Ashwin Amanna (ANDRO Comp	utational
Solutions, LLC, USA)	1200

Performance Analysis of Fifth-Generation Cellular Uplink	
Don Torrieri (US Army Research Laboratory, USA), Salvatore Talarico (West Virginia University, USA), Matthew Valenti (West Virginia University, USA)	1206
Policy-Enhanced Spectrum Operations: Analysis and Proof of Concept Implementation	
Cynthia Hood (Illinois Institute of Technology, USA), Gregory Cox (Roberson and Associates, LLC., USA), Stuart Schutta (Defense Information Systems Agency's Defense Spectrum Organization, USA), Anthony Rennier (Foundry,	
Inc., USA)	1212

Milcom 2015 Track 3: Milcom 2015 Track 3 - Cyber Security and Trusted Computing

Securing Data and Services in the Cloud

A Similarity Evaluation Algorithm and Its Application in Multi-Keyword Search on Encrypted Cloud Data Peisong Shen (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China), Chi Chen (Institute of Information Engineering & CAS, P.R. China), Xue Tian (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China), Jing Tian (Institute of Information Engineering,	
Chinese Academy of Sciences, P.R. China)	1218
A Multi-Level Secure File Sharing Server and its Application to a Multi-Level Secure Cloud	
Mark R. Heckman (University of San Diego, USA), Roger R. Schell (Aesec Global Services, USA), Edwards E. Reed (Aesec Global Services, USA)	1224
Integrated content-based information security for future military systems	
Konrad Wrona (NATO Communications and Information Agency, The Netherlands), Sander Oudkerk (ASCS, The Netherlands)	1230
Efficient Keyword Search for Public-Key Setting	
Rui Zhang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China), Rui Xue (Ca, P.R. China)	1236
Privacy Aware Incentive Mechanism to Collect Mobile Data While Preventing Duplication	
Junggab Son (North Carolina Central University, USA), Donghyun Kim (North Carolina Central University, USA), Rasheed Hussain (Innopolis University & Information Security and Privacy Lab, Russia), Alade Tokuta (North Carolina Central University, USA), Sung-Sik Kwon (North Carolina Central University, USA), Jung Taek Seo (The Attached Institute of ETRI, Korea)	1242
Effective method to restore data in distributed data storage systems	
Nikolaos G. Bardis (Hellenic Army Academy & Director of Informatics LAB, Greece), Nikolaos Doukas (Hellenic Army Academy, Greece), Oleksandr P. Markovskyi (National Technical University of Ukraine, (Polytechnic Institute of	
Kiev), Ukraine)	1248

Modeling, Simulation and Analysis in Support of Cyber II

	Modeling Fault Tolerant Architectures with Design Diversity for Secure Systems	
	Manuel Rodriguez (Air Force Research Laboratory, USA), Kevin Kwiat (Air Force Research Laboratory, USA), Charles A Kamhoua (Air Force Research	
	Laboratory & Information Directorate, USA)	. 1254
	Validation of Network Simulation Model with Emulation using Example Malware	
	Scott Brown, II (Army Research Lab, USA), Brian Henz (US Army Research Laboratory, USA), Harold Brown (CERDEC, USA), Michael Edwards (CERDEC, USA), Michael Russell (CERDEC, USA), Jonathan Mercurio (Lockheed Martin,	
	USA)	. 1264
	Use of Simulation to Achieve Better Results in Cyber Military Training	
	Andre Machado (Eletronic Warfare Instruction Center, Brazil), Flavio Costa (Electronic Warfare Instruction Centre, Brazil)	. 1270
	Differential Power Analysis Countermeasures for the Configuration of SRAM FPGAs	
	Kenneth Alexander (Microsemi Corporation, USA), William Luis (Microsemi Corporation, USA), Richard Newell (Microsemi Corporation, USA)	. 1276
	Distributed StealthNet (D-SN): Creating a Live, Virtual, Constructive (LVC) Environment for Simulating Cyber-Attacks for Test and Evaluation (T&E)	
	Defeng Xu (Scalable Networks Technologies, USA), Rajive Bagrodia (Scalable Network Technologies, USA), Kent Pickett (MITRE Corporation, USA), Ha Hoang Duong (Scalable Network Technologies, USA), Sheetal Doshi (Scalable Network Technologies, USA), Gilbert Torres (NAVAIR Systems Command, USA), Kathy Smith (GBL Systems, USA), James Buscemi (GBL Systems,	
	USA)	. 1284
	A Comparison of Windows Physical Memory Acquisition Tools	
	Waqas Ahmed (National University of Sciences and Technology, Pakistan), Baber Aslam (National University of Sciences and Technology, Pakistan)	. 1292
Active Aut	thentication and Behavioral Biometrics HAA: Hardware-Accelerated Authentication for Internet of Things in Mission Critical Vehicular Networks	
	Ankush Singla (Purdue University, USA), Anand Mudgerikar (Purdue	
	University, USA), Ioannis Papapanagiotou (Purdue University, USA), Attila Altay Yavuz (Oregon State University, USA)	. 1298
	Enhanced Recognition of Keystroke Dynamics using Gaussian Mixture Models	
	Hayreddin Çeker (University at Buffalo, USA), Shambhu Upadhyaya (University at Buffalo, USA)	. 1305
	An HMM-based Multi-sensor Approach for Continuous Mobile Authentication	
	Aditi Roy (New York University, Polytechnic School of Engineering, USA), Tzipora Halevi (Polytechnic Institute of New York University, USA), Nasir Memon (New York University Polytechnic School of Engineering, USA)	1211
	Comparison of PIN- and Pattern-based Behavioral Biometric Authentication on	. 1311
	Mobile Devices	
	Yanyan Li (University of Arkansas at Little Rock, USA), Junshuang Yang (University of Arkansas at Little Rock, USA), Mengjun Xie (University of Arkansas at Little Rock, USA), Dylan Carlson (Lake Superior State University, USA), Han Gil Jang (Washington and Lee University, USA), Jiang Bian	45:-
	(University of Florida, USA)	. 1317

Detecting Network Probabilistic Calibrat		Anomalies	Based	on	Robust	Multivariate	
Yuchong Li (Nation Research Center, Engineering & Tec Digital Switching S China)	P.R. China), X hnological Res	ingguo Luo (search Cente	National r, P.R. C	Digi China	tal Switc), Bainan	hing System Li (National	1323

Milcom 2015 Track 2: Milcom 2015 Track 2 - Networking Protocols and Performance

Network Protocols

Dynamic Relay Node Selection Scheme for Multi-hop Time Synchronization in Link-16	
Min Hwan Cheon (Ajou University, Korea), Hoki Baek (Ajou University, Korea), Jae Sung Lim (Ajou University, Korea)	1329
Network-Aware Stream Query Processing in Mobile Ad-Hoc Networks	
Dan O'Keeffe (Imperial College London, United Kingdom), Theodoros Salonidis (IBM Research, USA), Peter Pietzuch (Imperial College London, United Kingdom)	. 1335
Impact of Network Activity Levels on the Performance of Passive Network Service	
Dependency Discovery	
Thomas E. Carroll (Pacific Northwest National Laboratory, USA), Satish Chikkagoudar (Pacific Northwest National Laboratory, USA), Kristine Arthur-Durett (Pacific Northwest National Laboratory, USA)	. 1341
Binary Log-Linear Learning with Stochastic Communication Links	
Arjun Muralidharan (UCSB, USA), Yuan Yan (UC Santa Barbara, USA), Yasamin Mostofi (University of California, Santa Barbara, USA)	. 1348
Transport Protocols Revisited	
Maggie Breedy (Florida Institute for Human & Machine Cognition, USA), Peter Budulas (US Army Research Laboratory, USA), Alessandro Morelli (University of Ferrara, Italy), Niranjan Suri (Florida Institute for Human & Machine Cognition & US Army Research Laboratory, USA)	. 1354
Design and Evaluation of a Mass Configuration Protocol (MCONF) for Tactical MANETs	
Peter Katlic (Rensselaer Polytechnic Institute, USA), Koushik Kar (Rensselaer Polytechnic Institute, USA), James Morris (Rensselaer Polytechnic Institute, USA), James Nguyen (US Army CERDEC, USA), Robert G Cole (US Army Research Laboratory & SLAD, USA)	. 1361

Milcom 2015 Track 5: Milcom 2015 Track 5 - Selected Topics in Communications

Network Science and Topology Control

Inferring Pairwise Influence from Encrypted Communication	
Brian Thompson (United States Army Research Lab, USA), Hasan Cam (Army Research Laboratory, USA)	. 1367
Probabilistic Spreading of Recommendations in Social Networks	
Anahita Davoudi (University of Central Florida, USA), Mainak Chatterjee (University of Central Florida, USA)	. 1373
Unveiling the Structure of Multi-attributed Networks via Joint Non-negative Matrix Factorization	
Hung T Nguyen (Virginia Commonwealth University & School of Engineering, USA), Thang N. Dinh (Virginia Commonwealth University, USA)	. 1379
Network Science Collaborative Experimentation: Methods and Tools to Accelerate Network Science Innovation Within the ITA and NS-CTA	
Kelvin Marcus (Army Research Laboratory, USA), Maroun Touma (IBM Research & IBM, USA), Flavio A Bergamaschi (IBM Hursley Laboratory, United Kingdom)	. 1385
Network Science Experimentation Scale and Composition in a Virtualized Experimentation Environment	
John Hancock (ArtisTech, Inc., USA), Kelvin Marcus (Army Research Laboratory, USA)	. 1391
Topology Control for Time-Varying Contested Environments	
Ertugrul Necdet Ciftcioglu (IBM Research, USA), Kevin S Chan (US Army Research Laboratory, USA), Ananthram Swami (Army Research Lab., USA), Derya Cansever (Army CERDEC, USA), Prithwish Basu (Raytheon BBN Technologies, USA)	. 1397

Milcom 2015 Track 4: Milcom 2015 Track 4 - System Perspectives

Communications on the Move

Performance Analysis of Diversity Techniques for Secure SATCOM-on-the-Move Systems	
Christian A Hofmann (Munich University of the Bundeswehr, Germany), Robert T. Schwarz (Universität der Bundeswehr München, Germany), Andreas Knopp (Munich University of the Bundeswehr, Germany)	1403
Spectral Efficiency Performance of Small-Aperture Terminals in NGSO Satellite Links	
Vijitha Weerackody (Johns Hopkins University/APL, USA)	1409
Earth Stations on Moving Platforms	
Enrique G. Cuevas (The Johns Hopkins University Applied Physics Laboratory, USA), Vijitha Weerackody (Johns Hopkins University/APL, USA)	1415

Cyber-Foraging for Improving Survivability of Mobile Systems Grace A. Lewis (Carnegie Mellon Software Engineering Institute, USA), Sebastián Echeverría (Carnegie Mellon Software Engineering Institute, USA), James Root (Carnegie Mellon Software Engineering Institute, USA), Ben Bradshaw (Carnegie Mellon Software Engineering Institute, USA) Interference Criteria for Mobile Ad-Hoc Networks Jeffrey Boksiner (US Army RDECOM CERDEC S&TCD, USA), Yuriy Posherstnik (US Army CERDEC S&TCD, USA), Richard Yeager (Government Contractor Sabre Systems, Inc., USA)	
lilcom 2015 Track 1: Milcom 2015 Track 1 - Waveforms and Signal rocessing	
F Radio Systems 1	
Staring Link Establishment for High-Frequency Radio Eric Johnson (NMSU, USA)	1/22
Wideband HF and 4G ALE Near Vertical Incidence Skywave Test Results Randy Nelson (Rockwell Collins, USA), Bradley Butikofer (Rockwell Collins,	1433
USA), Joseph Lahart (Rockwell Collins, USA), David Church (Rockwell Collins, USA)	1439
HF Band Filter Bank Multi-Carrier Spread Spectrum Stephen Andrew Laraway (University of Utah, USA), Hussein Moradi (Idaho National Laboratory, USA), Behrouz Farhang-Boroujeny (University of Utah, USA)	1445
Results from a wideband HF usability study Mark Jorgenson (Rockwell Collins - Canada, Canada), Nigel Cook (Rockwell Collins Canada, Canada)	1454
Efficient high-fidelity simulation of HF communications systems and networks Eric Koski (Harris Corporation, USA), Jeffery Weston (Harris Corporation, RF	
Communications Division, USA)Sparsity-aware Direct Decision-feedback Equalization of Ionospheric HF Channels	1460
Francisco Carlos Ribeiro, Jr. (Brazilian Army Technological Center, Brazil), Elaine Marques (Brazilian Army Technological Center, Brazil), Nilson Maciel de Paiva, Jr. (Brazilian Army Technological Center, Brazil), Juraci Galdino (Brazilian Army Technological Center, Brazil)	1467
ot Topics in Communications	1-107
Spectrum Efficient Communications with Multiuser MIMO, Multiuser Detection and Interference Alignment Satya Prakash Ponnaluri (Intelligent Automation, Inc., USA), Sohraab Soltani (Intelligent Automation, Inc., USA), Yi Shi (Intelligent Automation Inc., USA), Yalin E Sagduyu (Intelligent Automation, Inc., USA)	1473

Ergodic Capacity in mmWave Ad Hoc Network with Imperfect Beam Alignment Andrew Thornburg (The University of Texas at Austin, USA), Robert Heath (The University of Texas at Austin, USA)	1479
Interference Detection using Time-Frequency Binary Hypothesis Testing	
Andrew Marcum (Purdue University & Raytheon Company, USA), Joon Young Kim (Purdue University, USA), David Love (Purdue University, USA), James V. Krogmeier (Purdue University, USA)	1485
Joint Radar-Communications Performance Bounds: Data versus Estimation Information Rates	
Alex Chiriyath (Arizona State University, USA), Daniel W. Bliss (Arizona State University, USA)	1491
Multistage Anti-Spoof GPS Interference Correlator (MAGIC)	
Wilbur L. Myrick (Dynetics, USA), Michael L. Picciolo (Dynetics, USA), J. Scott Goldstein (Dynetics, USA), Vernon Joyner (Dynetics, USA)	1497
Conversion Gain for Interference Combating	
Alois M.J. Goiser (Vienna University of Technology & TU-Wien, Austria)	1503
Single-Channel Blind Separation of Co-Frequency MPSK Signals Based on PSP Algorithm with DFSE Ying Bei Liu (Nanyang Tochnological University, Singapore), Yong Liang Guan	
Xiao Bei Liu (Nanyang Technological University, Singapore), Yong Liang Guan (Nanyang Technological University, Singapore), Soo Ngee Koh (Nanyang Technological University, Singapore)	1509
Interception of The Triangular FM Waveform via Self-Convolution	
Farhan A Qazi (University of Hawaii at Manoa & 201G POST Building, USA), Adly T. Fam (University at Buffalo, USA)	1515
Distributed Asynchronous Modulation Classification Based on Hybrid Maximum Likelihood Approach	
Thakshila Wimalajeewa (Syracuse University, USA), Jithin Jagannath (ANDRO Computational Solutions, LLC, USA), Pramod Varshney (Syracuse University, USA), Andrew Drozd (ANDRO Computational Solutions, LLC, USA), Wei Su (US Army RDECOM CERDEC, USA)	1510
High-Order Statistical Analysis for Linearly Modulated Signals	1313
Hideki Ochiai (Yokohama National University, Japan)	1524
Approximate Joint MAP Detection of Co-Channel Signals	1021
Daniel Jakubisin (Virginia Tech, USA), Michael Buehrer (Virginia Tech, USA)	1530
On the Performance of Energy Detectors in Generalized Fading Environments	
Eyidayo Adebola (Prairie View A & M University & CECSTR, USA), Annamalai Annamalai (Prairie View A&M University, USA)	1536
11 1	

Milcom 2015 Track 3: Milcom 2015 Track 3 - Cyber Security and Trusted Computing

Network Protocols and Security I

An Automatic Approach to Extract the Formats of Network and Security Log Messages	
Jing Ya (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China), Tingwen Liu (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China), Haoliang Zhang (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China), Jinqiao Shi (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China), Li Guo (Institute of Information Engineering, Chinese Academy of Sciences, P.R. China)	1542
Distributed Security Policies for Service-Oriented Architectures over Tactical Networks	
Roberto R. F. Lopes (Norwegian University of Science and Technology - NTNU, Norway), Stephen D. Wolthusen (Royal Holloway, University of London, United Kingdom)	1548
Enabling Security-Aware Virtual Machine Placement in IaaS Clouds	
Xuebiao Yuchi (Tennessee State University, USA), Sachin Shetty (Tennessee State University, USA)	1554
Network protocols and security II	
Utilizing the BitTorrent DHT for Blind Rendezvous and Information Exchange Reese Moore (Virginia Tech, USA), Christopher Morrell (Virginia Tech, USA), Randy Marchany (Virginia Tech, USA), Joseph G Tront (Virginia Tech, USA) Layered Scalable WAVE Security for VANET	1560
Kazi Ahmed (The City College of New York, USA), Myung Lee (CUNY, City College, USA), Jie Li (Farmingdale State College, SUNY, USA) Multi-domain Public Key Infrastructure for Vehicle-to-Grid Network	1566
Binod Vaidya (University of Ottawa, Canada), Dimitrios Makrakis (University of Ottawa, Canada), Hussein T Mouftah (University of Ottawa, Canada)	1572
Cross-Domain Operations	
A Novel Multiple Independent Levels of Security/Safety Cross Domain Solution Angelo Liguori (University of Roma Tre, Italy)	1578
ARMing the Trusted Platform Module - Pro-active System Integrity Monitoring Focussing on Peer System Notification	
Markus Maybaum (NATO Cooperative Cyber Defence Centre of Excellence & Fraunhofer Institute FKIE, Estonia), Jens Toelle (Fraunhofer FKIE & University of Bonn, Germany)	1584
, , , , , , , , , , , , , , , , , , , ,	

Automatic Security Classification by Machine Learning for Cross-Domain Information Exchange	
Hugo Hammer (Oslo University College, Norway), Kyrre Kongsgård (Norwegian Defense Establishment, Norway), Aleksander Bai (Oslo University College, Norway), Anis Yazidi (Høgskolen i Oslo og Akershus, Norway), Nils A Nordbotten (Norwegian Defence Research Establishment (FFI), Norway), Paal E. Engelstad (Oslo and Akershus University College, University of Oslo/UNIK and FFI, Norway)	1590
The Guessing Attack and other Security Challenges of Cross-Domain Information Exchange	
Paal E. Engelstad (Oslo and Akershus University College, University of Oslo/ UNIK and FFI, Norway)	1596

Milcom 2015 Track 5: Milcom 2015 Track 5 - Selected Topics in Communications

Geolocation and RF Mapping

Wireless Emergency Alerts in Arbitrary Sized Target Areas: Mobile Location Aware Emergency Notification	
Emre Gunduzhan (Johns Hopkins University Applied Physics Laboratory, USA), Bharat Doshi (US Army CERDEC, USA), Lotfi Benmohamed (IEEE, USA)	1606
Global attestation of location in mobile devices	
Saritha Arunkumar (IBM UK & City University London, United Kingdom), Mudhakar Srivatsa (IBM T.J. Watson Research Center, USA), Murat Sensoy (University of Aberdeen, United Kingdom), Muttukrishnan Rajarajan (City University London, United Kingdom)	1612
Mobile Geolocation Techniques for Location-Aware Emergency Response Services	
Bharat Doshi (US Army CERDEC, USA), Emre Gunduzhan (Johns Hopkins University Applied Physics Laboratory, USA), Jay Chang (JHU/APL, USA), Osama Farrag (Johns Hopkins University Applied Physics Laboratory, USA)	1618
Performance of RF Mapping Using Opportunistic Distributed Devices	
Jason Schuette (DARPA Systems Engineering & Technical Assistant & Spectrum Advocates, LLC, USA), Barry Fell (DARPA, USA), John Chapin (DARPA, USA), Steven D. Jones (The Johns Hopkins University, USA), James Stutler (John Hopkins University/APL, USA), Mark Birchler (Roberson and Associates, USA), Dennis A. Roberson (Illinois Institute of Technology &	
Roberson and Associates, LLC, USA)	1624

Milcom 2015 Track 1: Milcom 2015 Track 1 - Waveforms and Signal Processing

HF Radio Systems 2

Modeling Automatic Link Establishment in HF Networks Romain Prouvez (Thales Communications & Security, France), Bruno Baynat (Université Pierre et Marie Curie-LIP6, France), Hicham Khalife (Thales Communications & Security, France), Vania Conan (Thales Communications & Security, France), Catherine Lamy-Bergot (Thales Communications & Security, France)	1630
A Critique of HF NVIS Channel Models	. 1000
Marcus T. Urie (TrellisWare Technologies Inc., USA), Gautam Thatte (TrellisWare Technologies Inc., USA), Ryan McCourt (TrellisWare Technologies Inc., USA), Parker Martin (TrellisWare Technologies Inc., USA), Xiaochen Li (TrellisWare Technologies, Inc., USA), Cenk Köse (Trellisware Technologies, Inc., USA), Michael Fitz (TrellisWare Technologies, Inc., USA), Scott Enserink (TrellisWare Technologies Inc., USA)	1636
Ground Wave Propagation Characterization and Prediction for Cognitive HF Radio Michael Conway (The Pennsylvania State University, USA), Christopher Payne (The Pennsylvania State University, USA), Eric Koski (Harris Corporation,	
USA), Sven G. Bilén (The Pennsylvania State University, USA)	. 1643
A Model for Dual Polarized HF MIMO Communications Scott Enserink (Trellisware Technologies, Inc., USA), Michael Fitz (TrellisWare Technologies, Inc., USA), Cenk Köse (Trellisware Technologies, Inc., USA), Marcus T. Urie (Trellisware Technologies, Inc., USA), Ryan McCourt	
(TrellisWare Technologies Inc., USA)	1650
Channel Modeling	
Air-Ground Channel Characterization for Unmanned Aircraft Systems: the Near- Urban Environment	
David W Matolak (University of South Carolina, USA), Ruoyu Sun (National Institute of Standards and Technology, USA)	. 1656
Air-Ground Doppler-Delay Spread Spectrum for dense scattering environments Mostafa Ibrahim (Istanbul Medipol University, Turkey), Huseyin Arslan (University of South Florida, USA)	. 1661
A High-Fidelity Statistical Model of Frequency Hopping Interference for Fast Simulation	
David C Ripplinger (MIT Lincoln Laboratory, USA), Benjamin Hamilton (MIT Lincoln Laboratory, USA), Gregory Kuperman (MIT Lincoln Laboratory, USA)	. 1667
Wideband Propagation Characteristics at 312 MHz in Eastern Norway and Impact on Waveform Requirements	
Vivianne Jodalen (FFI Norway, Norway), Jeffrey A Pugh (Communications Research Centre, Canada), Philip J Vigneron (Communications Research Centre & Industry Canada, Canada)	. 1673

Relay Communications

Efficient Cooperative Relaying Selection Scheme based on TDMA for Military Tactical Multi-hop Wireless Networks	
Long Bach Nguyen (Kumoh National Institute of Technology, Korea), Dong Seong Kim (Kumoh National Institute of Technology, Korea)	1679
Optimal Transmission Decisions for Airborne Relay Communications	
Yalin E Sagduyu (Intelligent Automation, Inc., USA), Yi Shi (Intelligent Automation Inc., USA), Satya Prakash Ponnaluri (Intelligent Automation, Inc., USA), Sohraab Soltani (Intelligent Automation, Inc., USA), Jason Hongjun Li (Intelligent Automation Inc., USA), Rob Riley (AFRL, USA)	1685
Maximum Entropy Quantization for Link-State Adaptation in Two-Way Relaying	
Lisa Pinals (Tufts University, USA), Mai Vu (Tufts University, USA)	1691
SINR Analysis and Energy Allocation of Preamble and Training for Time Division CT with Range Extension	
Qiongjie Lin (Georgia Institute of Technology, USA), Mary Ann Weitnauer (Georgia Tech, USA)	1697