



Nominations for the Gary F. Wheatley Award  
Best Paper and Best Student Paper

CCRTS  
2004



# Track 1: C2 Modeling & Simulation



*Applications of Dynamic Systems Theory to Effects-Based Operations and Adversarial Modelling (Student)*

Paul Bello, Air Force Research Laboratory

Mitch Mailman, Air Force Research Laboratory

*Networks of Decision-Making and Communicating Agents: A New Methodology for Design and Evaluation of Organizational Strategies and Heterarchical Structures*

Georgiy M. Levchuk, Aptima, Inc.

Feili Yu, University of Connecticut

Yuri Levchuk, Aptima, Inc.

Krishna R. Pattipati, University of Connecticut



# Track 1: C2 Modeling & Simulation



## *Effects-Based Design of Robust Organizations (Student)*

Sui Ruan, University of Connecticut

Candra Meirina, University of Connecticut

Haiying Tu, University of Connecticut

Feili Yu, University of Connecticut

Krishna R. Pattipati, University of Connecticut

## *Modeling Team Performance in the Air Defense Warfare Domain*

Joseph DiVita, Space and Naval Warfare Systems Center

Glenn Osga, Space and Naval Warfare Systems Center

Robert Morris, Space and Naval Warfare Systems Center



# Track 2: Network Centric Applications



*The Vital Role of Intelligent Software Agents in Enabling Network Centric Command and Control*

Dr. Dale E. Lichtblau, Institute for Defense Analyses

*Web Enabling HLA Compliant Simulations to Support Network Centric Applications*

Katherine L. Morse, Ph.D., SAIC

David L. Drake, SAIC

Ryan P.Z. Brunton, SAIC



# Track 4: C4ISR/C2 Architectures



## *C2 Product-Centric Approach to Transforming Current C4ISR Information Architectures*

Dr. Israel Mayk, US Army Communications-Electronics Research

Bernard Goren, US Army Communications-Electronics Research



## Track 5: C2 Assessment & Tools



### *Multi-Agent Simulation for Assessing Massive Sensor Deployment (Student)*

Captain Sean Hynes, U.S. Marine Corps, U.S. Naval Postgraduate School

Neil C. Rowe, U.S. Naval Postgraduate School

### *An Exploration of C2 Effectiveness—A Holistic Approach*

Neill Smith, Mission Software Pty Ltd

Thea Clark, Defence Science and Technology Organisation



# Track 5: C2 Assessment & Tools



*The M-OODA: A Model Incorporating Control Functions and Teamwork in the OODA Loop*

Robert Rousseau, Defence Research and Development  
Canada, Valcartier

Richard Breton, Defence Research and Development Canada,  
Valcartier

*An Empirical Assessment of the Impact of Requirements Uncertainty on Development Quality Performance*

Ayad Y. Aldaijy, Ph.D, Royal Saudi Air Force, (RSAF),  
Ministry of Defense and Aviation



# Track 6: C2 Decisionmaking & Cognitive Analysis



*Agent-based Decision Support System for the Third Generation Distributed Dynamic Decision-making (DDD-III) Simulator (Student)*

Candra Meirina, University of Connecticut

Sui Ruan, University of Connecticut

Feili Yu, University of Connecticut

Liang Zhu, University of Connecticut

Krishna R. Pattipati, University of Connecticut

David L. Kleinman, Naval Postgraduate School

*Transforming Timed Influence Nets into Time Sliced Bayesian Networks (Student)*

Sajjad Haider, George Mason University

Abbas K. Zaidi, George Mason University





# Track 6: C2 Decisionmaking & Cognitive Analysis



*An Approximation Technique for Belief Revision in Timed  
Influence Nets (Student)*

Sajjad Haider, George Mason University

Alexander H. Levis, George Mason University

*Value Focused Thinking: Guiding C2 System Interface Design*

Dr. Janet E. Miller, AFRL/HECS



# Track 7: EBO & Emerging Concepts



*Discourse of Action: Command, Control, Conflict and the Effects Based Approach*

Robert Grossman-Vermaas, Department of National Defence  
(Canada) and Department of War Studies, King's College  
London (UK)

*Operationalizing Effects-Based Operations (An EBO Methodology Based on Joint Doctrine)*

Major Reginald J. Williams, ACC/XPSD

Mr. Rocky Kendall, ACC/XPSD



# Track 8: NCO Transformation



## *Communication of Context in Multi-Echelon Information Exchange Environments*

Heather M. Oonk, Pacific Science & Engineering Group, Inc.

Ronald A. Moore, Pacific Science & Engineering Group, Inc.

Jeffrey G. Morrison, Ph. D., Space and Naval Warfare Systems Center



# Track 9: C2 Experimentation



*DISCCO: Generic Support for C2 and Decision-Making  
(Student)*

Klas Wallenius, Royal Institute of Technology

*Visualization for Tracking Battlefield Events in Time and  
Space for C2*

Thomas Kapler, Oculus Info Inc

William Wright, Oculus Info Inc



# Track 10: C2 Human Factors Engineering



*The Impact of Hybrid Team Structures on Performance and Adaptation: Beyond Mechanistic and Organic Prototypes*

Dustin K. Jundt, Michigan State University

Danial R. Ilgen, Michigan State University

John R. Hollenbeck, Michigan State University

Stephan E. Humphrey, Michigan State University

Michael D. Johnson, Michigan State University

Christopher J. Meyer, Michigan State University



# Track 10: C2 Human Factors Engineering



## *An Intelligent Interface-Agent Framework for Robotic Command and Control*

Dr. Scott D. Wood, Soar Technology, Inc.

Jack Zaiantz, Soar Technology, Inc.

Jonathon Beard, Soar Technology, Inc.

Dr. Richard Frederiksen, Soar Technology, Inc.

Sean Lisse, Soar Technology, Inc.

Jacob Crossman, Soar Technology, Inc.

Dr. Marcus Huber, Intelligent Reasoning Systems



# Track 11: Coalition Interoperability & Shared Awareness



*Observations in Allocation and Tasking of Joint Level Intelligence Surveillance and Reconnaissance (ISR) Systems in Support of Coalition Operations*

John L Mahaffey, NATO Consultation, Command and Control Agency

*Information Engineering in Support of Multilateral Joint Operational Interoperability*

Éric Dorion, M. Sc., Defence R&D Canada, ValCartier

Anne-Claire Boury-Brisset, Ph. D., Defence R&D Canada, ValCartier



## Track 12: Shared Awareness



*Quantitative Analysis of Situational Awareness (QUASA):  
Applying Signal Detection Theory to True/False Probes and Self-  
Ratings*

Barry McGuinness, BAE Systems

*Distributed Command and Organizational Situation Awareness  
(Student)*

Norman K. Ma, Texas A&M University

Thomas R. Ioerger, PhD, Texas A&M University

*Model-Driven Development of Command and Control Capabilities  
for Joint and Coalition Warfare*

Robert W. Jacobs, Computer Systems Center Inc.





## Track 13: C2 & Homeland Security/Defense



*Snap-Cards: A Dynamic Data Construct of Rapid Information Gathering and Integration for C2 Effectiveness in Homeland Security*

Qiuming Zhu, University of Nebraska at Omaha

Jeffrey D. Hicks, 21st Century Systems, Inc.

Richard Flanagan, 21st Century Systems, Inc.

Alexander Stoyen, 21st Century Systems, Inc.



# 2004 CCRTS Gary F. Wheatley Award



## **Best Student Paper**

*An Approximation Technique for Belief Revision in Timed Influence Nets*

Sajjad Haider, George Mason University

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## **Best Paper**

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