

# CONFERENCE AT A GLANCE

<b>Thursday, May 19</b>	
<b>Time</b>	<b>Conference Event and Location</b>
7:00 – 8:00 am	Continental Breakfast ( <i>Prefunction area</i> )
8:10 – 8:15	Opening and Remarks: Ralph Merkle, Georgia Institute of Technology, Conference Co-Chair ( <i>Ballroom B</i> )
8:15 – 9:00 am	Plenary Keynote Address: Richard Russell, Director, Information Sharing and Collaboration, U.S. Department of Homeland Security, Washington, D.C. ( <i>Ballroom B</i> )
9:10– 10:10 am	Session 1A ( <i>Ballroom B</i> ) Session 1B ( <i>Ballroom D</i> ) Session 1C ( <i>Ballroom E</i> )
10:10 – 10:40 am	Morning Break
10:40 – 12:00pm	Session 2A ( <i>Ballroom B</i> ) Session 2B ( <i>Ballroom D</i> ) Session 2C ( <i>Ballroom E</i> )
12:00 – 1:30 pm	Lunch ( <i>Ballroom A</i> )
1:30 – 2:40 pm	Session 3A ( <i>Ballroom B</i> ) Session 3B ( <i>Ballroom D</i> ) Session 3C ( <i>Ballroom E</i> )
2:40 – 3:00 pm	Afternoon Break (short) ( <i>Prefunction area</i> )
3:00 – 4:10 pm	Session 4A ( <i>Ballroom B</i> ) Session 4B ( <i>Ballroom D</i> ) Session 4C ( <i>Ballroom E</i> )
4:10 – 4:30 pm	Afternoon Break (short) ( <i>Prefunction area</i> )
4:30 – 5:50 pm	Session 5A ( <i>Ballroom B</i> ) Session 5B ( <i>Ballroom D</i> ) Session 5C ( <i>Ballroom E</i> )
6:30 – 8:30 pm	Poster/Demo Session and Conference Reception ( <i>Prefunction area</i> )

<b>Friday, May 20</b>	
<b>Time</b>	<b>Conference Event and Location</b>
7:00 – 8:00 am	Continental Breakfast ( <i>Prefunction area</i> )
8:10 - 8:15	Remarks and Announcements: Hsinchun Chen, University of Arizona, Conference Co-Chair ( <i>Ballroom B</i> )
8:15 – 9:00 am	Plenary Keynote Address: Peter Freeman, Assistant Director of NSF for CISE, "The Role of Fundamental Computer Science Research in Intelligence and Security" ( <i>Ballroom B</i> )
9:00 – 10:00 am	Plenary Panel Session: "ISI Research and Funding," Art Becker ITIC/CIA; Joshua Sinai, ANSER; Larry Brandt, NSF ( <i>Ballroom B</i> )
10:00 – 10:30 am	Morning Break
10:30 – 12:00pm	Session 6A ( <i>Ballroom B</i> ) Session 6B ( <i>Ballroom D</i> ) Session 6C ( <i>Ballroom E</i> )
12:00 – 1:30 pm	Lunch ( <i>Ballroom A</i> ) Organizing Committee and Planning Lunch Meeting ( <i>Tuxedo Room</i> )
1:30 – 2:50 pm	Session 7A ( <i>Ballroom B</i> ) Session 7B ( <i>Ballroom D</i> ) Session 7C ( <i>Ballroom E</i> )
2:50 – 3:10 pm	Afternoon Break ( <i>Prefunction area</i> )
3:10 – 4:40 pm	Session 8A ( <i>Ballroom B</i> ) Session 8B ( <i>Ballroom D</i> ) Session 8C ( <i>Ballroom E</i> )
4:40 pm	Conference adjourns

## SCHEDULE

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8:15 am – 9:00 am **Plenary Keynote Address: Richard Russell**, Director, Information Sharing and Collaboration, U.S. Department of Homeland Security, Washington, D.C. (Ballroom B)

9:10 am – 10:10 am **Session 1**

**Session 1A** (Ballroom B)  
Session Chair: **Mark Goldberg**

*Collusion Set Detection through Outlier Discovery\**  
Vandana P. Janeja, Vijayalakshmi Atluri, Jaideep Vaidya, and Nabil R. Adam

*Digging in the Details: A Case Study in Network Data Mining\**  
John Galloway and Simeon Simoff

**Session 1B** (Ballroom D)  
Session Chair: **Dmitri Roussinov**

*Design Principles of Coordinated Multi-Incident Emergency Response Systems\**  
Rui Chen, Raj Sharman, H. Raghav Rao, and Shambhu J. Upadhyaya

*Multi-Modal Biometrics with PKI Technologies for Border Control Applications\**  
Taekyoung Kwon and Hyeonjoon Moon

**Session 1C** (Ballroom E)  
Session Chair: **Edna Reid**

*A New Conceptual Framework to Resolve Terrorism's Root Causes\**  
Joshua Sinai

*The Application of PROACT® RCA to Terrorism/Counter Terrorism Related Events\**  
Robert J. Latino

10:10 am – 10:40 am **Morning Break**

10:40am – 12:00pm **Session 2**

**Session 2A** (Ballroom B)  
Session Chair: **Gheorghes Muresan**

*Efficient Identification of Overlapping Communities\**  
Jeffrey Baumes, Mark Goldberg, and Malik Magdon-Ismael

*Event-Driven Document Selection for Terrorism Information Extraction\**  
Zhen Sun, Ee-Peng Lim, Kuiyu Chang, Teng-Kwee Ong, and Rohan K. Gunaratna

\*Indicates 30-minute presentation;  
all others are 20 minutes

*Analysis of Three Intrusion Detection System Benchmark Datasets Using Machine Learning Algorithms*  
Hilmi G. Kayacik and Nur Zincir-Heywood

**Session 2B** (Ballroom D)  
Session Chair: **Mark Adkins**

*Using Behaviour Based Bayesian Networks\**  
Ram Dantu and Prakash Kolan: Risk Management

*Sensitivity Analysis of an Attack Containment Model\**  
Ram Dantu, Joao Cangussu, and Janos Turi

*A Jackson Network-Based Model for Quantitative Analysis of Network Security\**  
Zhengtao Xiang, Yufeng Chen, Wei Jian, and Fei Yan

**Session 2C**, Invited Panel: “*Legal and Social Issues in ISI Research*”  
(Ballroom E)

Moderator: **Edna Reid**

Panelists: Lee Strickland, University of Maryland; Demetri Vacalis, Office of Security and Emergency Preparedness, CDC; David Zimmermann, FBI

12:00n – 1:30 pm **Lunch** (Ballroom A)

1:30 pm – 2:40 pm **Session 3**

**Session 3A**, Invited Panel: “*Technical ISI Research: Professional Societies and Publications*” (Ballroom B)

Moderators: **Hsinchun Chen and Fei-Yue Wang**

Panelists: Donald Brown, Editor-in-chief, IEEE Transactions on Systems, Man, and Cybernetics, Part A; Charles Herget, President, IEEE Intelligent Transportation Systems Society; Feiyue Wang, President-elect, IEEE Intelligent Transportation Systems Society; Xindong Wu, Editor-in-chief, IEEE Transactions on Knowledge & Data Engineering

**Session 3B** (Ballroom D)  
Session Chair: **Paul Kantor**

*A Conceptual Model of Counterterrorist Operations\**  
Dave Davis, Allison Frendak -Blume, Jennifer Wheeler, Alexander E.R. Woodcock, and Clarence Worrell III

*Biomonitoring, Phylogenetics and Anomaly Aggregation Systems*  
David R.B. Stockwell and Jason T.L. Wang

*Computational Tool in Infrastructure Emergency Total Evacuation Analysis*  
Kelvin H.L. Wong and Mingchun Luo

**Session 3C** (Ballroom E)  
Session Chair: **Guoray Cai**

*Toward a Target-Specific Method of Threat Assessment\**  
Yael Shahar

*Forecasting Terrorism: Indicators and Proven Analytic Techniques*  
Sundri K. Khalsa

\*Indicates 30-minute presentation;  
all others are 20 minutes

*Forecasting Terrorist Groups' Warfare: 'Conventional' to CBRN*  
Joshua Sinai

2:40 pm – 3:00 pm **Afternoon Break** (short)

3:00pm – 4:10pm **Session 4**

**Session 4A** (*Ballroom B*)  
Session Chair: **Jeff Baumes**

*Link Analysis Tools for Intelligence and Counterterrorism\**  
Antonio Badia and Mehmed Kantardzic

*Efficient Discovery of New Information in Large Text Databases*  
Roger Bradford

*Map-Mediated GeoCollaborative Crisis Management*  
Guoray Cai, Alan M. MacEachren, Isaac Brewer, Mike McNeese, Ra-  
jeev Sharma, and Sven Fuhrmann

**Session 4B** (*Ballroom D*)  
Session Chair: **David Skillicorn**

*CODESSEAL: Compiler/FPGA Approach to Secure Applications\**  
Olga Gelbart, Paul Ott, Bhagirath Narahari, Rahul Simha, Alok  
Choudhary, and Joseph Zambreno

*Performance Study of a Compiler/Hardware Approach to Embedded  
Systems Security*  
Kripashankar Mohan, Bhagi Narahari, Rahul Simha, Alok Choudhary,  
Joe Zambreno, and Paul Ott

*A Secured Mobile Phone Based on Embedded Fingerprint  
Recognition Systems*  
Xinjian Chen, Jie Tian, Qi Su, Xin Yang, and Fei-Yue Wang

**Session 4C** (*Ballroom E*)  
Session Chair: **Don Radlauer**

*Measuring Success in Countering Terrorism: Problems and Pitfalls\**  
Peter S. Probst

*The Qualitative Challenge of Insurgency Informatics*  
Scott Tousley

*Analyzing Terrorist Networks: A Case Study of the Global Salafi  
Jihad Network*  
Jialun Qin, Jennifer J. Xu, Daning Hu, Marc Sageman and Hsinchun Chen

4:10 pm – 4:30 pm **Afternoon Break** (short)

4:30 pm – 5:50 pm **Session 5**

**Session 5A** (*Ballroom B*)  
Session Chair: **Yael Shahar**

\*Indicates 30-minute presentation;  
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*ICHECK-- Identifying Deception Data by Impact-Sensitive Instance Ranking\** (invited talk)  
Xingdong Wu

*Private Mining of Association Rules\**  
Justin Zhan, Stan Matwin, and Liwu Chang

*Leveraging One-Class SVM and Semantic Analysis to Detect Anomalous Content*  
Ozgur Yilmazel, Svetlana Symonenko, Niranjan Balasubramanian, and Elizabeth D. Liddy

**Session 5B** (Ballroom D)  
Session Chair: **Lina Zhou**

TBD: *Bioterrorism and Bioinformatics\** (invited talk)

*Mining Candidate Viruses as Potential Bio-Terrorism Weapons from Biomedical Literature\**  
Xiaohua Hu, Illhoi Yoo, Peter Rumm, and Michael Atwood

*Evaluating an Infectious Disease Information Sharing and Analysis System*  
Paul Jen-Hwa Hu, Daniel Zeng, Hsinchun Chen, Cathy Larson, Wei Chang, and Chunju Lu

**Session 5C** (Ballroom E)  
Session Chair: **James Ellis**

*Mapping the Contemporary Terrorism Research Domain: Researchers, Publications, and Institutions Analysis\**  
Edna Reid and Hsinchen Chen

*Testing a Rational Choice Model of Airline Hijackings\**  
Laura Dugan, Gary LaFree, and Alex Piquero

*Incident and Casualty Databases as a Tool for Understanding Low Intensity Conflicts*  
Don Radlauer

6:30 – 8:30 pm **Poster and Demo Session and Conference Reception** (Prefunction area)  
Ample food and a no-host bar will be provided.

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8:15 am – 9:00 am **Plenary Keynote Address:** Peter Freeman, Assistant Director of NSF for CISE, “The Role of Fundamental Computer Science Research in Intelligence and Security” (Ballroom B)

9:00 am – 10:00 am **Plenary Panel Session:** “ISI Research and Funding,” Art Becker ITIC/CIA; Joshua Sinai, ANSER; Larry Brandt, NSF (Ballroom B)

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Moderator: **Paul Kantor**, Rutgers University, Program Committee Co-Chair

10:00 am – 10:30 am **Morning Break**

10:30 am – 12:00 pm **Session 6**

**Session 6A** (Ballroom B)  
Session Chair: **Antonio Badia**

*Integrating Private Databases for Data Analysis\**  
Ke Wang, Benjamin C. M. Fung, and Guozhu Dong:

*LSI-Based Taxonomy Generation: The Taxonomist System*  
Janusz Wnek

*Some Marginal Learning Algorithms for Unsupervised Problems*  
Qing Tao, Gao-Wei Wu, Fei-Yue Wang, and Jue Wang

*An Ontological Approach to the Document Access Problem of Insider Threat*  
Boanerges Aleman-Meza, Phillip Burns, Matthew Eavenson, Devanand Palaniswami, and Amit Sheth

**Session 6B** (Ballroom D)  
Session Chair: **Bulent Yener**

*Automatic Extraction of Deceptive Behavioral Cues from Video\**  
Thomas Meservy, Matthew L. Jensen, John Kruse, Judee K. Burgoon, and Jay F. Nunamaker, Jr.:

*Deception across Cultures: Bottom -up and Top-down Approaches*  
Lina Zhou, and Simon Lutterbie

*Detecting Deception in Synchronous Computer-Mediated Communication Using Speech Act Profiling*  
Douglas P. Twitchell, Nicole Forsgren, Karl Wiers, Judee K. Burgoon, and Jay F. Nunamaker, Jr.

*How Question Answering Technology Helps to Locate Malevolent Online Content*  
Dmitri Roussinov and Jose Robles-Flores

**Session 6C**, Invited Panel: “*Terrorism Informatics*” (Ballroom E)  
Moderator: **Joshua Sinai**  
Panelists: Laura Dugan, University of Maryland; James Ellis, National Memorial Institute for the Prevention of Terrorism; Rita Katz, The Search for International Terrorist Entities; Yael Shahar, International Policy Institute for Counter-Terrorism, Israel; Peter S. Probst, Institute for the Study of Terrorism and Political Violence

12:00 pm – 1:30 pm **Lunch** (Ballroom A)

12:00 pm – 1:30pm **Organizing Committee and Planning Lunch Meeting** (By invitation)  
(West Paces Meeting Room)

1:30 pm – 2:50 pm **Session 7**

\*Indicates 30-minute presentation;  
all others are 20 minutes

**Session 7A** (Ballroom B)  
Session Chair: **Boanerges Aleman-Meza**

*Active Automation of the DITSCAP*  
Seok-Won Lee, Robin Gandhi, Gail-Joon Ahn, and Deepak Yavagal

*Information Supply Chain: A Unified Framework for Information-Sharing*  
Shuang Sun and John Yen

*Filtering, Fusion and Dynamic Information Presentation: Towards a General Information Firewall*  
Gregory Conti, Mustaque Ahamad, and Robert Norback

*Intrusion Detection System Using Sequence and Set Preserving Metric*  
Pradeep Kumar, M. Venkateswara Rao, P. Radha Krishna, Raju S. Bapi, and Arijit Laha

**Session 7B** (Ballroom D)  
Session Chair: **Ram Dantu**

*Automatically Determining an Anonymous Authors Native Language\**  
Moshe Koppel, Jonathan Schler, and Kfir Zigdon

*A Cognitive Model for Alert Correlation in a Distributed Environment\**  
Ambareen Siraj and Rayford B. Vaughn

*Applying Authorship Analysis to Arabic Web Content*  
Ahmed Abbasi and Hsinchun Chen

**Session 7C** (Ballroom E)  
Session Chair: **Laura Dugan**

*Advanced Methodologies for Analyzing Terrorists' Use of Internet\**  
(invited talk)  
Rita Katz

*Content-Based Detection of Terrorists Browsing the Web Using an Advanced Terror Detection System (ATDS)\**  
Yuval Elovici, Bracha Shapira, Mark Last, mer Zaafrany Menahem Friedman, Moti Schneider, and Abraham Kandell:

*Connections in the World of International Terrorism*  
Yael Shahar

2:50 pm – 3:10 pm **Afternoon Break**

3:10pm – 4:40pm **Session 8**

**Session 8A** (Ballroom B)  
Session Chair: **Daniel Zeng**

*Data Distortion for Privacy Protection in a Terrorist Analysis System*  
Shuting Xu, Jun Zhang, Dianwei Han, and Jie Wang

*Learning Classifiers for Misuse Detection Using a Bag of System Calls Representation*  
Dae-Ki Kang, Doug Fuller, and Vasant Honavar

\*Indicates 30-minute presentation;  
all others are 20 minutes

*A Novel Watermarking Algorithm Based on Block SVD and Zernike Moments*  
Haifeng Li, Shuxun Wang, Weiwei Song, and Quan Wen

*A Survey of Software Watermarking*  
William Zhu, Clark Thomborson, and Fei-Yue Wang

**Session 8B** (*Ballroom D*)  
Session Chair: **Gheorghe Muresan**

*Modeling and Multiway Analysis of Chatroom Tensors\**  
Evrin Acar, Seyit Camtepe, Mukkai S. Krishnamoorthy, and Bulent Yener

*Selective Fusion for Speaker Verification in Surveillance\**  
Yosef A. Solewicz and Moshe Koppel

*Beyond Keyword Filtering for Message and Conversation Detection\**  
David B. Skillicorn

**Session 8C** (*Ballroom E*)  
Session Chair: **Peter Probst**

*Collecting and Analyzing the Presence of Terrorists on the Web: A Case Study of Jihad Websites*  
Edna Reid, Jialun Qin, Yilu Zhou, Guanpi Lai, Marc Sageman, Gabriel Weimann, and Hsinchun Chen

*Thematic Indicators Derived from World News Reports*  
Clive Best, Erik van der Goot, and Monica de Paola

*Discovering Identity Problems: A Case Study*  
Alan G. Wang, Homa Atabakhsh, Tim Petersen, and Hsinchun Chen

*The Multi-Fractal Nature of Worm and Normal Traffic at Individual Source Level*  
Yufeng Chen, Yabo Dong, Dongming Lu, and Yunhe Pan

5:00pm – 6:00pm **Terrorism Informatics Panel Sessions – Debriefing** (By invitation)  
(Tuxedo Room)

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all others are 20 minutes