CTS 2014 Sessions – Preliminary
(Subject to changes)

(Underlined name is the official paper presenter)

KEYNOTES AND PLENARY PAPERS

Talking in the Zooniverse: A Collaborative Tool for Citizen Scientists
Lucy Fortson, Stuart Lynn
School of Physics and Astronomy, University of Minnesota – Twin Cities, Minnesota, USA; Citizen Science Department, Adler Planetarium, Illinois, USA

TUESDAY, MAY 20, 2014

Social Computing, New Media and Networks Tuesday, May 20 10:20-12:20

1. Identifying and Shifting Social Media Network Patterns with NodeXL
Marc Smith
Connected Action, Inc., and Social Media Research Foundation, California, USA

2. Elite Size and Resilience Impact on Global System Structuration in Social Media
Sorin Adam Matei, Wutao Tan, Michael Zhu, Chuanhai Liu, Elisa Bertino, Jeremy Foote
Purdue School of Communications, Purdue University, Indiana, USA

Thomas Ernste
University of Minnesota – Twin Cities, Minnesota, USA

4. Design and Implementation of Web-based Collaborative Social Curation
Abbas Ali Butt, Jaehyuk Park, Yong-Moo Kwon
IMRC - Korea Institute of Science and Technology (KIST), Seoul, South Korea; University of Science and Technology, Daejeon, South Korea

5. Combining Smart Energy Meters with Social Media: Increasing Energy Awareness using Data Visualization and Persuasive Technologies
Julie Marie Røsok
Østfold University College, Halden, Norway

Virtual Teams and Collaborative Teamwork Tuesday, May 20 13:20-15:20

1. Leadership Styles and Their Effect on the Structure of Communication Response Patterns among Global Virtual Teams
Ian Brooks, Kathy Swigger
University of North Texas, Texas, USA

2. Asynchronous Understanding of Creative Sessions using Archived Collaboration Artifacts
Lutz Gericke, Matthias Wenzel, Christoph Meinel
Hasso-Plattner-Institut, Potsdam, Germany

3. Notifications Management in Distributed Development Environments: A Case Study
Hani Bani-Salameh, Clinton Jeffery
The Hashemite University, Zarqa, Jordan; University of Idaho, Idaho, USA
4. Semantic Conflict Reduction Through Automated Feature Reservation in Multi-user Computer-Aided Design
   Ammon Hepworth, Bryce DeFigueiredo, Devin Shumway, Nathan Fronk, C. Greg Jensen
   Brigham Young University, Utah, USA

Human Centered Systems and Collaboration Awareness     Tuesday, May 20  15:40-17:00

1. Supporting Practice-centered Awareness in Computer-Mediated Collaboration across Communities of Practice
   Obinna Anya, Hissam Tawfiq
   IBM Research - Almaden, California, USA; Liverpool Hope University, U.K.

2. A Case Study in Seeding Collaboration Transformation with Experience Themes
   Faith McCreary, Marla Gomez, Cindy Pickering, Susan Michalek, Anne McEwan, Deidre Ali
   Intel Corporation, Oregon, USA; Emerson Network Power, Ohio, USA

   Víctor R. Martínez Palacios, Víctor M. González
   Instituto Tecnológico Autónomo de México (ITAM), Mexico City, Mexico

The Second International Symposium on Big Data and Data Analytics in Collaboration (BDDAC 2014)     Tuesday, May 20  10:20-12:20

1. Large-scale Entity Extraction and Probabilistic Record Linkage
   Flavio Villanustre, Reed Elsevier
   LexisNexis Risk Solutions, Georgia, USA

2. sCooL: A System for Academic Institution Name Normalization
   Ferosh Jacob, Faizan Javed, Meng Zhao, Matt Menair
   CareerBuilder.com, Georgia, USA

3. Deep Linguistic Analysis based NLP for Accurate Sentiment Analysis in Social Media
   Antonio Valderrabanos, Enrique Torrejon
   BITEXT, Madrid, Spain

4. Handling Class Imbalance in Customer Behavior Prediction
   Nengbao Liu, Wei Lee Woon, Zeyer Aung, Afshin Afshari
   Masdar Institute of Science and Technology, Abu Dhabi, United Arab Emirates

5. Defining Architecture Components of the Big Data Ecosystem
   Yuri Demchenko, Cees de Laat, Peter Membrey
   University of Amsterdam, The Netherlands; Hong Kong Polytechnic University, Hong Kong SAR, China

The Fifth International Collaborative Robots and Human Robot Interaction (CR-HRI 2014)
Tuesday, May 20  13:20-15:20 &      Tuesday, May 20  15:40-17:00

   (Invited)
   Selma Sabanović
   School of Informatics and Computing, Indiana University - Bloomington, Indiana, USA

2. Alignment or Collaboration? How Implicit Views of Communication Influence Robot Design
   Kerstin Fischer
   IFKI - University of Southern Denmark, Denmark

3. Human-Like Motion of a Humanoid in a Shadowing Task
   Yasser Mohammad, Toyoaki Nishida
   Arunkumar Ramaswamy, Bruno Monsuez, Adriana Tapus
   ENSTA-ParisTech, Palaiseau, France; VeDeCom Institute, Versailles, France

5. Studying Verbal Feedback in Human Collaborations to Inform Robot Speech Production
   Aaron St. Clair, Maja Matarić
   University of Southern California - Los Angeles, California, USA

6. PopArm: A Robot Arm for Embodying Video-Mediated Pointing Behaviors
   Yuya Onishi, Kazuaki Tanaka, Hideyuki Nakanishi
   Osaka University - Suita, Osaka, Japan

Tuesday, May 20 10:20-12:20 & Tuesday, May 20 13:20-15:20

1. CollAC: Collaborative Access Control
   Stan Damen, Jerry den Hartog, Nicola Zannone
   Technische Universiteit Eindhoven, The Netherlands

2. A Non-Technical XACML Target Editor for Dynamic Access Control Systems
   Bernard Stepień, Amy Felty, Stan Matwin
   University of Ottawa, Ontario, Canada; Dalhousie University, Nova Scotia, Canada

3. Securing Cognitive Radio Networks against Belief Manipulation Attacks via Trust Management
   Onur Savas, Gahn Seop Ahn, Julia Deng
   Intelligent Automation, Inc., Rockville, MD 20855, Maryland, USA

4. Addressing Privacy Issues in Location-based Collaborative and Distributed Environment
   Andrea Saracino, Daniele Sgandurra, Dayana Spagnuelo
   Istituto di Informatica e Telematica - Consiglio Nazionale delle Ricerche (CNR), Italy; Universidade Federal de Santa Catarina, Brazil

5. REDIR: Automated Static Detection of Obfuscated Anti-Debugging Techniques
   Adam J. Smith, Robert F. Mills, Adam R. Bryant, Gilbert L. Peterson, Michael R. Grimalia
   Air Force Institute of Technology; Cyber Research Laboratory - Riverside Research, Ohio, USA

6. Mobile Malware Security Challenges and Cloud-Based Detection
   Nicholas F. Penning, Michael Hoffman, Jason Nikolai, Yong Wang
   Dakota State University - Madison, South Dakota, USA

7. Enhanced Mobile Security Using SIM Encryption
   Nader Nassar, Richard Newhook, Grant Miller
   CIO Lab - Somers, IBM Corporation, New York; CIO Lab – Egg Harbor City, IBM Corporation, New Jersey; CIO Lab - Arvada, IBM Corporation, Colorado, USA

   Yong Wang, Karthik Vangury, Jason Nikolai
   Dakota State University - Madison, South Dakota, USA

9. EMV-TLS, A Secure Payment Protocol for NFC Enabled Mobiles
   Pascal Urien
   Telecom ParisTech, Paris, France
10. Pay2You Places: The Mobile Payment with Geo-location
   Marc Pasquet, Ndiaga Faye, Joan Reynaud
   Laboratoire GREYC, UNICAEN (Université Normande, France), ENSICAEN, CNRS, Caen, France

**Intelligent Human-Machine Interfaces, Multimodality and Collaborative Interaction**
**Tuesday, May 20  15:30-17:00**

1. Device Ecologies to Support Collaborative Learning in Classrooms
   **Emma Mercier**
   University of Illinois at Urbana-Champaign, Illinois, USA

2. Cross-Device Transfer in a Collaborative Multi-Surface Environment without User Identification
   **Stacey D. Scott**, Guillaume Besacier, Phillip J. McClelland
   University of Waterloo, 200 University Ave, Waterloo, ON, Canada

3. Acting Together by Mutual Control: Evaluating a Multimodal Interaction Concept for Cooperative Driving
   **Markus Zimmermann**, Stefan Bauer, Niklas Lütteken, Iris Maria Rothkirch, Klaus Bengler
   Institute of Ergonomics, Technische Universität München, Germany

**POSTER SESSION & RECEPTION**
**Tuesday, May 20   17:40-21:00**

**POSTER PAPERS**
**Tuesday, May 20   17:40-21:00**

1. Information Exchange and Fusion in a Collaborative Environment using Semantic Information Requirements
   **Joshua M. Powers**, Keith D. Shapiro, David S. Monk
   Securboration Inc., Florida, USA; CST Corporation, Scott AFB, Illinois, USA

2. An Effective Approach Using Eco-feedback to Motivate Energy Conservation Behaviors
   **Hieu Huynh Chi**
   Ostfold University College, Halden, Norway

3. Saving Energy with Pleasure: Designing EnergyRace Web Application
   **Ksenia Dmitrieva**
   Østfold University College, Halden, Norway

   **Que Tran**
   Ostfold University College, Halden, Norway

5. Collaborative System to Investigate Mental Models: the Information Architecture Automatic Tool (IAAT)
   **Cristina Olaverri-Monreal**, Joel Gonalves
   Technische Universität München, Germany

6. A New Scheme to Evaluate the Accuracy of Knowledge Representation in Automated Breast Cancer Diagnosis
   **Juan Shan**, Lin Li
   Pace University, New York, USA; Murray State University, Kentucky, USA

7. Disaster Relief Management and Resilience Using Photovoltaic Energy
   **Salahuddin Qazi**, **William Young**
   State University of New York Institute of Technology, New York, USA; SUN Tree Consulting, Florida, USA

**TECHNICAL POSTERS**
1. **From Microscope to Computer: Using Facebook to Assist Medical Laboratory Scientists in Nigeria Access and Navigate eLearning Courses**
   Jarret Cassanit, Lisa Mwaikambo, Rebecca Shore, Nandini Jayarajan
   Center for Communication Programs, Johns Hopkins University, Maryland, USA

2. **Semantic Search & Integration to Climate Data**
   Ranjeet Devarakonda, Giriprakash Palanisamy, Line C. Pouchard, Biva Shrestha
   Oak Ridge National Laboratory, Tennessee, USA

3. **Triggering Creativity through Semantic Cross-domain Web Crawling and Routing**
   Francesco Taglino, Fabrizio Smith
   Institute for System Analysis and Computer Science, CNR, Rome, Italy

4. **Integration of Emerging Learning Technologies in Secondary Schools: A Burkina Faso Case Study**
   Romaric R. Zongo
   University of Minnesota – Twin Cities, Minnesota, USA

5. **Visualization of Energy Consumption: Motivating for a Sustainable Behaviour Through Social Media**
   Caroline Sofie Olsen
   Østfold University College, Halden, Norway

**INDUSTRIAL POSTERS**

1. **TBA**
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   (TBA)

**WEDNESDAY, MAY 21, 2014**

**Collaborative Logistics, Planning, Services, and Management of Business Processes**
Wednesday, May 21  8:00-10:00

1. **Production, Takt and Lead Time Variation: Production Planning and Tardiness Probabilities in Small-Lot Casting**
   Steinar Kristoffersen
   Møre forsking Molde AS, Norway

2. **Creating Value through Supplier Development: The Case of a Fish Feed Supplier to the Aquaculture Industry**
   Gabriele Hofinger Jünge
   Møre forsking Molde AS, Norway

3. **Collaborative Engineering: A Framework for Engineering-to-order Companies**
   Pavan Kumar Sriram, Erlend Alfnes, Steinar Kristoffersen
   Norwegian University of Science and Technology (NTNU), Trondheim, Norway; Møre forskning AS Molde, Norway

4. **IT-enabled Collaborative Case Management - Principles and Tools**
   Sebastian Huber, Matthias Lederer, Freimut Bodendorf
   Institute of Information Systems, University of Erlangen-Nuremberg, Germany

5. **Business Process Assignment and Execution in Mobile Environments**
   Tao Peng, Chi-Hung Chi, Annamaria Chiasera, Giampaolo Armellin, Marco Ronchetti, Cristina Matteotti, Cristian Parra, Aleksey Oleksiy Kashytsa, Gabriele Bonadiman
   University of Trento, Italy; Centro Ricerche GPI, Trento, Italy; GPI, Trento, Italy; CSIRO, Hobart, Australia
Mobile Systems and Wireless Sensor Networks for Collaboration
Wednesday, May 21  13:20-15:20

1. Collaborative Sensing and Control in Large-Scale Transportation Systems
   Tian He,
   University of Minnesota – Twin Cities, Minnesota, USA

2. Cross-Layer Medium Access and Data Collection in Wireless Sensor Networks
   Mohamed Hefeida
   University of Illinois at Chicago, Illinois, USA

3. A Secure Wake-up Scheme for Low Power Wireless Sensor Nodes
   Oliver Stecklina, Stephan Kornemann, Michael Methfessel
   IHP Microelectronics GmbH, Frankfurt, Germany

4. An Efficient Lossless Data Reduction Algorithm for Cluster Based Wireless Sensor Network
   Syed Misbahuddin, Mahjabeen Tahir, Samia Aijaz Siddiqui
   Bahria University - Karachi Campus and Sir Syed University of Engineering and Technology, Karachi, Pakistan

   Simon Pettersen Nguyen
   Ostfold University College, Halden, Norway

Intelligent Agents and Multi-Agent Systems for Collaboration
Wednesday, May 21  15:20-17:20

1. Adopting Pedestrian Navigation Techniques for Multi-Robot Coordination
   Stephen J. Guy
   University of Minnesota - Twin Cities, Minnesota, USA
   (Invited)

2. Event-based Awareness Promotion for Distributed Collaborative Activities
   Guoray Cai, Bo Yu
   Pennsylvania State University, Pennsylvania, USA

3. Social Implications of Agent-based Planning Support for Human Teams
   Wenchao Jiang, Joel E. Fischer, Chris Greenhalgh, Tom Rodden, Sarvpali D. Ramchurn, Feng Wu, Nicholas R. Jennings
   University of Nottingham, U.K.; University of Southampton, U.K.

4. A Decentralized Behavioral Model for Collective Foraging Problem
   Ouarda Zedadra, Nicolas Jouandeau, Hamid Seridi, Antonio Guerrieri, Giancarlo Fortino
   LabSTIC Laboratory, 8 May 1945 University, Guelma, Algeria; Laboratoire d'Informatique Avancée de Saint-Denis (LIASD), Paris 8 University, Saint-Denis, France; DIMES - Università della Calabria, Italy

Collaborative Knowledge Management and Discovery
Wednesday, May 21  8:00-10:00

1. An XMT-based Approach for Long-Term Preservation of Digital Videos based on the Extensible MPEG-4 Textual Format
   Alexander Uherek, Sonja Maier, Uwe M. Borghoff
   Universität der Bundeswehr München, Neubiberg, Germany

2. Knowledge Discovery in Collaborative Design Projects
   Xinghang Dai, Matta Nada, Ducellier Guillaume
3. **A Methodology for Building Log of Collaboration Processes**  
Claudia Diamantini, Laura Genga, Domenico Potena, Giuseppa Ribighini  
Università Politecnica delle Marche, Ancona, Italy

4. **Semantics-based Social Media for Collaborative Open Innovation**  
Fabrizio Smith, Francesco Taglino  
Institute for System Analysis and Computer Science (IASI) - CNR, Roma, Italy

5. **An Integrated System for Social Information Discovery**  
Claudia Diamantini, Domenico Potena, Alessandro Sabelli, Samuele Scattolini  
Università Politecnica delle Marche, Ancona, Italy; Mediamente Consulting s.r.l., Empoli, Italy
WORK-IN-PROGRESS
Wednesday, May 21   8:00-10:00

1. Web 2.0 Within Organisations Bridging the Gap between KM Technology Centred and People Centred Approaches
   Fayez Alqahtani, Jason Watson, Helen Partridge
   King Saud University, Riyadh, Saudi Arabia

2. VDL-based Iconic Co-annotation in Crisis Management
   Xiaoyue Ma, Mohamed Sediri, Nada Matta, Jean-Pierre Cahier
   Xidian University, Xian, Shaanxi, China; Université de Technologie de Troyes, Troyes, France

3. Towards an Inclusive Virtual Dressing Room for Wheelchair-Bound Customers
   Anthony L. Brooks, Eva Petersson Brooks
   Aalborg University, Esbjerg, Denmark

4. Use of the Analogy Reasoning and Experience Feedback for Decision Support in Crisis Situation
   Mohamed Sediri, Nada Matta, Sophie Loriette, Alain Hugerot
   ICD/techCICO - Université de Technologie de Troyes, France; Aube Emergency Department, Troyes, France

Second International Workshop on Collaboration Technologies and Systems in Healthcare and Biomedical Fields (CoHeB 2014)

1. Collaborating Across Telemedicine Specialties for Improved Cancer Care
   Elizabeth A. Krupinski (Invited)
   Department Medical Imaging, University of Arizona -Tucson, Arizona, USA

2. TBA
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3. A Medical Domain Collaborative Anomaly Detection Framework for Identifying Medical Identity Theft
   Apurva Mohan
   Integrated Security Technologies, Honeywell ACS Labs, Minnesota, USA

4. A Home-based Telerehabilitation Randomized Trial for Stroke Care: Effects on Falls Self-Efficacy and Satisfaction with Care
   Neale R. Chumbler, Xinli Li, Patricia Quigley, Miriam C. Morey, Dorian Rose, Patricia Griffiths, Jon Sanford, Helen Hoenig
   University of Georgia - Athens, Georgia, USA; US Department of Veterans Affairs National Surgery Office, Denver, Colorado, USA; James A. Haley VAMC (151R), HSR&D/RRD Center of Excellence: Maximizing Rehabilitation Outcomes, Tampa, Florida, USA; Durham VA Medical Center Older Americans Independence (Pepper) Center, Duke University School of Medicine, Durham, North Carolina, USA; College of Public Health and Health Professions, Gainesville, Florida, USA; Atlanta Dept of Veterans Affairs RR&D, Center for Visual and Neurocognitive Rehabilitation Birmingham/Atlanta GRECC & Emory University School of Medicine, Division of General Medicine & Geriatrics, Atlanta, Georgia, USA; Atlanta Dept. of Veterans Affairs RR&D, Center for Visual and Neurocognitive Rehabilitation Center for Assistive Technology, College of Architecture, Georgia Tech University, Atlanta, Georgia, USA; Physical Medicine & Rehabilitation Service, Durham VA Medical Center, Durham, North Carolina, USA

5. When Technology Alone is Not Enough: A Discussion of a Struggling Telepsychiatry Project and Lessons from Model Programs
6. **A Novel Personal Health Network for Patient-Centered Chemotherapy Care Coordination**
   Katherine K. Kim, Janice Bell, Sarah Reed, Jill G. Joseph, Richard Bold, Kimberlie L. Cerrone, Daniel Altobello, Joydip Honechowdhury
   University of California - Davis, California, USA; Tiatros Inc., California, USA

7. **A Similarity Measurement of Clinical Trials Using SNOMED - A Preliminary Study**
   Duo (Helen) Wei, Tiara Campbell
   The Richard Stockton College of New Jersey, Galloway, New Jersey, USA
   (Will be presented by Juan Shan)

8. **An Internet of Things Resource for Rehabilitation**
   Anthony Lewis Brooks, Eva Petersson Brooks
   Aalborg University, Esbjerg, Denmark

**THURSDAY, MAY 22, 2014**


**Thursday, May 22  10:20-12:00 &  13:40-15:50**

1. **Collaborative Analysis in the Intelligence Community: Research Opportunities**
   Rita M. Bush
   IARPA, Office of the Director of National Intelligence, Washington, D.C., USA

2. **Collaborative Architecture for Analysis: Models of Hypothesis Structure and Coordination Mechanism**
   Stanley J. Rosenschein
   BranchTime Technologies, Palo Alto, California USA

3. **Wikis, Semantics, and Collaboration**
   Mark Greaves
   National Security Directorate, Pacific Northwest National Laboratory, Washington, USA

4. **Thinking from the System Architecture: A Better Methodology for Capture of Collaborative Knowledge**
   Thomas McDermott, Jack Zentner, Nicholas Bollweg
   Georgia Tech Research Institute, Georgia, USA

5. **Ganging Up on Big Data: Computer-Intermediated Collaborative Analysis**
   Mark Stefik, Hoda Eldardiry
   Palo Alto Research Center (PARC), California, USA

6. **User-Centered Design Guidelines for Collaborative Software for Intelligence Analysis**
   Jean Scholtz, Alex Endert
   Visual Analytics, National Security Division, Pacific Northwest National Laboratory, Washington, USA

7. **TBA**
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   TBA

8. **Roundtable Discussion**
   Rita M. Bush (Moderator)
   IARPA, Office of the Director of National Intelligence, Washington, D.C., USA

**The Fourth International Workshop on Cloud Services and Web 2.0 Technologies for Collaboration (CSWC 2014)**
Thursday, May 22 10:20-12:00 & 13:40-15:00

1. Opportunities for Data-Driven Cloud-based Mobile Optimization  
   William Myott, Thao Nguyen, Abhishek Chandra, George Karypis, Jon Weissman  
   University of Minnesota-Twin Cities, Minnesota, USA

2. Feel Free to Cache: Towards an Open CDN Architecture for Cloud-based Content Distribution  
   Zhi-Li Zhang  
   University of Minnesota-Twin Cities, Minnesota, USA

3. Nebula: Distributed Edge Cloud for Data-Intensive Computing  
   Mathew Ryden, Kwangsung Oh, Abhishek Chandra, Jon Weissman  
   University of Minnesota-Twin Cities, Minnesota, USA

   Daniele Spiga, Enrico Fattibene, Matteo Manzali, Davide Salomoni, Valerio Venturi, Paolo Veronesi, Livio Fano, Andrea Valentini, Gian Mario Bilei, Hassen Riahi, Loriano Storchi, Claudia Diamantini, Domenico Potena, Giuseppe Ribighini, Emanuele Storti, Damiano Falcioni, Daniele Fani, Barbara Re, Cinzia Amici, Serenella Carota, Francesco Cirillo, Maria Laura Maggiulli, Andrea Sergiacomi, Donatella Settimi  
   CERN, Geneve, Switzerland; INFN CNAF, Bologna, Italy; Physics and Geology Department, University of Perugia, Perugia, Italy; INFN Perugia, Perugia, Italy; Department of Information Engineering, Marche Polytechnic University, Ancona, Italy; School of Science and Technology, University of Camerino, Camerino, Italy; Regione Marche, Ancona, Italy

5. Collaborative Marketplaces for eScience: A Medical Imaging Use Case  
   Mengsong Zou, Javier Diaz-Montes, Ivan Rodero, Manish Parashar, Ioan Petri, Omer Rana, Xin Qi, David J. Foran  
   Rutgers University, New Jersey, USA; Cardiff University, U.K.; Rutgers University - Robert Wood Johnson Medical School, New Jersey, USA; Rutgers Cancer Institute of New Jersey, USA

6. SE+KNN: A Quality of Service Assessment Method to Handle Multiple Attributes  
   Hmood Al-Dossari, Jianhua Shao  
   King Saud University, Riyadh, Saudi Arabia; Cardiff University, Cardiff, United Kingdom

7. End-to-End QoS Mapping and Aggregation for Selecting Cloud Services  
   Raed Karim, Chen Ding, Ali Miri, Xumin Liu  
   Ryerson University, Ontario, Canada; Rochester Institute of Technology, New York, USA

The Second International Workshop on Collaboration in Emergency Response and Disaster Management (ERDM 2014)
Thursday, May 22 10:20-12:00 & 13:40-14:35

1. Ontology based Efficient Teamwork Strategies for Web based Agents in Rescue and Relief Operations  
   Asifa Altaf, Sarmad Sadik  
   National University of Science and Technology, Pakistan

2. An Internet of Things Ontology for Earthquake Emergency Evaluation and Response  
   Luca Spalazzi, Gilberto Taccari, Andrea Bernardini  
   Università Politecnica delle Marche, Ancona, Italy

3. A Review on Ground Penetrating Radar Technology for the Detection of Buried or Trapped Victims  
   Lorenzo Crocco, Vincenzo Ferrara  
   IREA - Institute for Electromagnetic Sensing of the Environment and CNR, Naples, Italy; DIET, Sapienza University of Rome, Italy

4. Satellite Assisted Underwater Radio Communication for Emergency Services  
   M. Umar Khan, Andres Marin Lopez  
   CAST, COMSATS Institute of IT, Pakistan; Universidad Carlos III, Madrid, Spain
5. Modelling The Communication between Emergency Actors in Crisis Management  
   Amina Saoutal, Jean-Pierre Cahier, Nada Matta  
   Université de Technologie de Troyes, Troyes, France

6. A Software Framework for Patient Data Handling in Emergencies and Disasters  
   Robert Olson, Junaid A. Zubairi, Anatoliy Biliciler  
   State University of New York - Fredonia, New York, USA

Virtual Environments and Collaboration Applications  
Thursday, May 22                14:35-15:50

1. Understanding Data through Collaboration: Developing Collaboration Support Tools for Expert Artists and Scientists  
   Daniel Keefe  
   University of Minnesota – Twin Cities, Minnesota, USA

2. Scientific Collaboration in Virtual Environments: The Western Consortium Watershed Analysis, Visualization, and Exploration (WC-WAVE) Project  
   Sergiu Dascalu  
   University of Nevada – Reno, Nevada, USA

3. Multi-Objective Optimization of Dead-Reckoning Error Thresholds for Virtual Environments  
   Jeremy R. Millar, Douglas D. Hodson, Gary B. Lamont, Gilbert L. Peterson  
   Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio, USA

DOCTORAL DISSERTATION COLLOQUIUM  
Thursday, May 22                15:00-15:50

1. A Federated Cloud of Things for Emergency Management  
   Gilberto Taccari  
   Università Politecnica delle Marche, Ancona, Italy  
   Dissertation Adviser: Luca Spalazzi  
   Discussant and Respondent: TBA

2. TBA  
   TBA  
   Dissertation Adviser: TBA  
   Discussant and Respondent: TBA