The 21st International Conference on
Conceptual Modeling - ER 2002
Tampere Hall
Tampere, Finland, October 7 - 11, 2002
Homepage: er2002.cs.uta.fi

Pre-Conference Tutorials

Monday, October 7, 2002
9.00 - 12.30
Tutorial 1. Modeling Dynamics of Business Processes: Key for Building Next Generation of Business Information Systems:

Lunch Restaurant in Tampere Hall
12.30 - 14.00

14.00 - 17.30
Tutorial 2. Ontology-driven Conceptual Modelling
Nicola Guarino and Luc Schneider, National Research Council LADSEB-CNR, Padova, Italy.

Tutorial evening, 19.00 - 22.00
Näsinneula observation tower
Light supper (at own cost)

Conference Tutorials

Tuesday, October 8, 2002
11.00 - 12.30
Tutorial 3. Advanced OO Modelling: Metamodels and Notations for the New Millenium:
Brian Henderson-Sellers, University of Technology, Sydney, Australia.

16.00 - 17.30
Nicola Guarino and Luc Schneider (Research Council LADSEB-CNR, Padova, Italy)

Wednesday, October 9, 2002
11.00 - 12.30
Tutorial 5. Workflow Management in Electronic Commerce:
Paul Grefen, University of Twente, The Netherlands.
Conceptual Modeling - ER 2002 Conference, October 8 - 10, 2002

The conference starts on Tuesday, October 8, at 9.00 AM. The conference is closed on Thursday, October 10, at 5.30 PM.

Tuesday, October 8, 2002

Opening of the Conceptual Modeling - ER 2002 Conference
9.00 - 9.10
Opening of the ER 2002 Conference
Hannu Kangassalo, Conference Chair, University of Tampere, Finland
Kari-Jouko Räihä, Vice-President, University of Tampere, Finland
Stefano Spaccapietra, Program Committee Co-Chair, EPFL Lausanne, Switzerland
Salvatore T. March, Program Committee Co-Chair, Vanderbilt University, USA
Yahiko Kambayashi, Program Committee Co-Chair, University of Kyoto, Japan

Keynote 1:
9.10 - 10.40 Session Chair: Salvatore T. March, Vanderbilt University, USA
Conceptual Modelling and Ontology: Possibilities and Pitfalls
Ron Weber (University of Queensland, Australia)

Break

Session 1: Semantics and Meta-Models
11.00 - 12.30 Session Chair: Ramez Elmasri, (University of Texas at Arlington, USA)
Component Construction of Database Schemes
Bernhard Thalheim (Brandenburg University of Technology, Germany)
Multirelational Semantics for Extended Entity-Relationship Schemata with Applications
Sebastiano Vigna (Università degli Studi di Milano, Italy)
A Meta-model for e-Contract Template Variable Dependencies Facilitating e-Negotiation
S.C. Cheung (Hong Kong University of Science and Technology, Hong Kong), Patrick C.K. Hung (University of Waterloo, Canada), and Dickson K.W. Chiu (Chinese University of Hong Kong, Hong Kong)

Tutorial 3.
11.00 - 12.30
Advanced OO Modelling: Metamodels and Notations for the New Millenium:
Brian Henderson-Sellers, University of Technology, Sydney, Australia.

Lunch Restaurant in Tampere Hall
12.30 - 14.00

**Session 2: Principles of Ontology**
14.00 - 15.30  Session Chair: Isabelle Comyn-Wattiau, (ESSEC Business School, France)

On the General Ontological Foundations of Conceptual Modeling
Giancarlo Guizzardi (University of Twente, The Netherlands),
Heinrich Herre (University of Leipzig, Germany), and
Gerd Wagner (Eindhoven University of Technology, The Netherlands)

Finding and Characterizing Changes in Ontologies
Michel Klein, Atanas Kiryakov, and Dieter Fensel (Vrije Universiteit, The Netherlands)

Superimposed Schematics: Introducing E-R Structure for In-Situ Information Selections
Shawn Bowers, Lois Delcambre, and David Maier (Oregon Health and Science University, USA)

**Special Workshop**
14.00 - 15.30  Workshop Chair: Peter P. Chen, Louisiana State University, USA.
Cyber Security Workshop

**Session for Industrial Presentations, Demos and Posters (14.00 - 15.30)**

14.00 - 14.30
Executable Model for Processing Customers’ Feedback
Ilia Bider and Rogier Svensson, IbisSoft, Stockholm, Sweden,

14.30 - 15.00
JustBrowsing: A Generic API for Exploring Information (Demonstration)
Shawn Bowers and Lois Delcambre Oregon Health & Science University, USA

- **Posters**
15.00 - 15.10
Development of a conceptual datamodel for digital spatiotemporal geographical information, with application to several themes and geographical information systems.
Nico Van de Weghe, (Ghent University, Belgium)

15.10 - 15.20
Using Semantic Rules Database to Dynamically Set up the ICSpace Virtual Building.
Ozifrankly Silva', Tatiana Tavares, Márcia Lucena, Guido Souza Filho,
(Federal University of Rio Grande do Norte, Brazil)

15.20 - 15.30
On the Transformation of Object Oriented Conceptual models to Logical Theories: from EROOS to ID -Logic.
Pieter Bekaert and Bert Van Nuffelen, (Katolic University of Leuven, Belgium)

Break

**Session 3: Web Environments**
16.00 - 17.30  Session Chair:  Lois Delcambre, (Oregon Health and Science University, USA)

Web extensions to UML: Using the MVC Triad
   David Lowe, Brian Henderson-Sellers, and Alice Gu (University of Technology, Sydney, Australia)

Wiccap Data Model: Mapping Physical Websites to Logical Views
   Zehua Liu, Feifei Li, and Wee Keong Ng (Nanyang Technological University, Singapore)

Representing and Querying Semistructured Web Data Using Nested Tables with Structural Variants
   Altigran S. da Silva, Irna M. R. Evangelista Filha, Alberto H. F. Laender (Federal University of Minas Gerais, Brazil) and David W. Embley (Brigham Young University, USA)

Tutorial 4.
16.00 - 17.30  Tutorial Session Chair:  •••
   Ontology-driven Conceptual Modelling: Advanced Concepts
   Nicola Guarino and Luc Schneider (Research Council LADSEB-CNR, Padova, Italy)

Steering Committee Meeting (Closed)
17.30 - 19.00

Reception
19.30 - 21.00
Reception of City of Tampere
Old City Hall

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**Wednesday, October 9, 2002**

Keynote 2:
9.00 - 10.30  Session Chair:  Stefano Spaccapietra, (EPFL Lausanne, Switzerland)
   **An Ontology for m-Business Models**
   Yves Pigneur (University of Lausanne, Switzerland)

Break

**Session 4: Theory and Methods**
11.00 - 12.30  Session Chair:  Joachim Biskup, (University of Dortmund, Germany)
On the Transformation of Object-Oriented Conceptual Models to Logical Theories
  Pieter Bekaert, Bert Van Nuffelen, Maurice Bruynooghe, David Gilis and Marc Denecker (Katholieke Universiteit Leuven, Belgium)

Reasoning with Goal Analysis
  Paolo Giorgini (University of Trento, Italy), John Mylopoulos (University of Toronto, Canada), Eleonora Nicchiarelli, and Roberto Sebastiani (University of Trento, Italy)

Registering Scientific Information Sources for Semantic Mediation
  Amarnath Gupta, Bertram Ludaescher, and Maryann E. Martone (University of California, San Diego, USA)

Tutorial 5.
11.00 - 12.30
Workflow Management in Electronic Commerce:
  Paul Grefen, University of Twente, The Netherlands.

Lunch Restaurant in Tampere Hall
12.30 - 14.00

Session 5: Methods and Tools
14.00 - 15.30 Session Chair: Jose Palazzo de Oliveira, (Federal University of Rio Grande do Sul, Brazil)

Multidimensional Modeling with UML Package Diagrams
  Sergio Lujan-Mora, Juan Trujillo (Universidad de Alicante, Spain), and Il-Yeol Song (Drexel University, USA)

Comparative Evaluation of Large Data Model Representation Methods: The Analyst's Perspective
  Daniel L. Moody (Norwegian University of Science and Technology, Norway)

Extracting Conceptual Relationships from Specialized Documents
  Bowen Hui and Eric Yu (University of Toronto, Canada)

Special Workshop
14.00 - 15.30 Workshop Chair: Peter P. Chen, Louisiana State University, USA.
  Cyber Security Workshop

Break

Session 6: Applications for Practice
16.00 - 15.30 Session Chair: Il-Yeol Song, (Drexel University, USA)
A Transactional Model for Data Warehouse Maintenance
  Jun Chen, Songting Chen, and Elke A. Rundensteiner (Worcester Polytechnic Institute, USA)

The Account Data Model
Andrew Pletch, Chih-yang Tsai, and Charles Matula (State University of New York at New Paltz, USA)

A Semantic Model for Hypertext Data Caching
Kai Cheng (Kyoto University, Japan and Wuhan University, China) and Yahiko Kambayashi (Kyoto University, Japan)

Special Workshop
16.00 - 17.30  Workshop Chair: Peter P. Chen, Louisiana State University, USA.
Cyber Security Workshop

Conference Dinner
19.00 - 23.00  Restaurant Ziberia
Banquet keynote speaker:
Dr. Ruzena Bajcsy: (University of California, Berkeley, USA), Information Technology in Service to Society Opportunities and Challenges.

Announcement of the ER2003 conference and invitation

Thursday, October 10, 2002

Keynote 3:
9.00 - 10.30  Session Chair:  Tok Wang Ling, (National U. of Singapore, Singapore)

Independence-Friendly Logic: Some Applications
Gabriel Sandu (University of Helsinki, Finland)

Break

Session 7: Applying Ontology in Conceptual Modeling
11.00 - 12.30  Session Chair:  Arne Sølvberg, (Norwegian University of Science and Technology, Norway)

Understanding and Simulating Narratives in the Context of Information Systems
Angelo E. M. Ciarlini and Antonio L. Furtado (Pontifícia Universidade Católica do Rio de Janeiro, Brazil)

Global Schema Generation Using Formal Ontologies
Farshad Hakimpour (University of Zurich, Switzerland) and Andreas Geppert (Credit Suisse Financial Services, Switzerland)

Automatically Extracting Ontologically Specified Data from HTML Tables with Unknown Structure
David W. Embley, Cui Tao, and Stephen W. Liddle (Brigham Young University, USA)

Session 8: System and Data Integration
11.00 - 12.30  Session Chair:  David W. Embley, (Brigham Young University, USA)
On the Expressive Power of Data Integration Systems  
Andrea Calì', Diego Calvanese, Giuseppe De Giacomo, and Maurizio Lenzerini (Università di Roma “La Sapienza”, Italy)

Property-Based Semantic Reconciliation of Heterogeneous Information Sources  
Jeffrey Parsons (Memorial University of Newfoundland, Canada) and Yair Wand (The University of British Columbia, Canada)

Conceptual Integration of Multiple Partial Geometric Models  
Simone Santini and Amarnath Gupta (University of California San Diego, USA)

**Lunch**  
Restaurant in Tampere Hall  
12.30 - 14.00

**Session 9: Quality Assessment**  
14.00 - 15.30  Session Chair: Bernhard Thalheim, (Brandenburgian Technical University, Germany)

Evaluating the Quality of Process Models: Empirical Analysis of a Quality Framework  
Terje Brasethvik, Daniel L. Moody, Guttorm Sindre, and Arne Sølvberg (Norwegian University of Science and Technology, Norway)

Data Quality in Web Information Systems  
Barbara Pernici (Politecnico di Milano, Italy) and Monica Scannapieco (Università di Roma “La Sapienza”, Italy)

Conceptual Modeling Quality – From EER to UML Schema Evaluation  
Samira Si-Said (Laboratoire CEDRIC-CNAM, France), Jacky Akoka (Laboratoire CEDRIC-CNAM et INT, France), and Isabelle Comyn-Wattiau (Université de Cergy-Pontoise et ESSEC, France)

**Session 10: XML & Object Systems**  
14.00 - 15.30  Session Chair: Stephen W. Liddle, (Brigham Young University, USA)

Conceptual Modeling for Customized XML Schemas  
Ramez Elmasri, Yu-Chi Wu, Babak Hojabri, Charley Li, and Jack Fu (The University of Texas at Arlington, USA)

A Flexible Cost Model for Abstract Object-Oriented Database Schemas  
Joachim Biskup and Ralf Menzel (Universitat Dortmund, Germany)

Designing Valid XML Views  
Ya Bing Chen, Tok Wang Ling, and Mong Li Lee (National University of Singapore, Singapore)

**Break**

**Panel:** 16.00 - 17.30  
"Do we need an ontology of ontologies?"
Moderator: Heinrich C. Mayr, University of Klagenfurt, Austria
Panelists:
- Nicola Guarino, National Research Council LADSEB-CNR, Padova, Italy
- John Morris,
- Jari Palomaki, University of Tampere, Finland
- Bernhard Thalheim, Brandenburgian Technical University, Germany
- Yair Wand, University of British Columbia, Canada

Closure of the Conference

Finnish Sauna
Native Finns will guide the participants.
Instructions and rules will be given in advance.
(At own cost)

Workshops on Friday, October 11, 2002:
(See the content of workshops on the page 'Workshops'.)

Second International Workshop on Evolution and Change in Data Management (ECDM 2002): Chairpersons: Fabio Grandi, University of Bologna, Italy, John Roddick, Flinders University, South Australia.

ER/IFIP WG8.1 Workshop on Conceptual Modeling Approaches to Mobile Information Systems Development - (MobiMod'02): Chairpersons: John Krogstie, SINTEF and Norwegian Institute of Science and Technology, Norway, Keng Siau, University of Nebraska-Lincoln, USA, Kalle Lyytinen, Case Western Reserve University, USA.

International Workshop on Conceptual Modeling Quality (IWCMQ'02): PC Chair: Mario Piattini, University of Castilla-La Mancha, Spain.


Special workshop: Cyber security workshop:
Chair: Peter P. Chen, Louisiana State University.

Observe times:
- Tuesday, October 8, 2002, 14.00 - 15.30
- Wednesday, October 9, 2002, 14.00 - 15.30
- Wednesday, October 9, 2002, 16.00 - 17.30

Partial list of participants of the workshop:

Ruzena Bajcsy, Director, Center for Information Technology Research in the Interest of Society - CITRIS, University of California at Berkeley, (also past Director of Computer Information Science and Engineering Directorate
Dr. Bajcsy will talk on Wednesday.
- Topic of the talk: To comment on the cyber security activities at Berkeley.

C. V. Ramamoorthy, University of California at Berkeley, (past Editor in Chief: IEEE Transactions on Software Engineering, IEEE Transactions on Knowledge and Data Engineering),
- Topic of the talk: To share his views on security issues in software engineering.

QiPing Liu, CEO, China Power E-Commerce Corporation, China.
- Topic of the talk: To discuss the security issues in e-commerce.

H. Yamaguchi, Executive Consultant, IT Strategy, Nippon Electric Corporation (NEC), Japan,
- Topic of the talk: To discuss Japan's activities in cyber security.

Ye-Sho Chen, Louisiana State University, Business School,
- Topic of the talk: To talk about security issues from the perspectives of auditing.

Peter P. Chen, Louisiana State University.

S. Jajodia, (maybe), Director, Center for Secure Information Systems, George Mason University.
- To discuss the research projects in his center.

L. Wong, (maybe), U.S. Navy SPAWAR System Center, USA.

* Others.

Friday, October 11, 2002:

Concert at Tampere Hall, 7 pm
Leif Segerstam, conductor
Helsinki Philharmonic Orchestra
More information available from the Information Desk and on the webpage http://www.tampere-talo.fi/ (at own cost)