## Conference Information


## Research Papers

### Research Papers: Design

- Characteristics of New Requirements in the Presence or Absence of an Existing System Architecture
  - James A. Miller, Remo Ferrari, and Nazim H. Madhavji
  - Page 5

- Practical Challenges for Methods Transforming i* Goal Models into Business Process Models
  - Ken Decreus, Monique Snoeck, and Geert Poels
  - Page 15

- Intellectual Property Rights Requirements for Heterogeneously-Licensed Systems
  - Thomas A. Alspaugh, Hazeline U. Asuncion, and Walt Scacchi
  - Page 24

### Research Papers: Elicitation

- Enhancing Stakeholder Profiles to Improve Recommendations in Online Requirements Elicitation
  - Carlos Castro-Herrera, Jane Cleland-Huang, and Bamshad Mobasher
  - Page 37

- EPC vs. UML Activity Diagram - Two Experiments Examining their Usefulness for Requirements Engineering
  - Anne Gross and Joerg Doerr
  - Page 47

- Analysis of Multi-Party Agreement in Requirements Validation
  - Ivan Jureta, John Mylopoulos, and Stéphane Faulkner
  - Page 57
Research Papers: Evolving Systems
Reasoning on Non-Functional Requirements for Integrated Services

Carlo Ghezzi and Giordano Tamburrelli

RELAX: Incorporating Uncertainty into the Specification of Self-Adaptive Systems

Jon Whittle, Pete Sawyer, Nelly Bencomo, Betty H.C. Cheng, and Jean-Michel Bruel

What Happened to Our Features? Visualization and Understanding of Scope Change Dynamics in a Large-Scale Industrial Setting

Krzysztof Wnuk, Björn Regnell, and Lena Karlsson

Research Papers: Modelling
Developing Production Rule Models to Aid in Acquiring Requirements from Legal Texts

Jeremy C. Maxwell and Annie I. Antón

Forensic System Verification

Robert J. Hall

A Use Case Based Approach to Feature Models’ Construction

Bo Wang, Wei Zhang, Haiyan Zhao, Zhi Jin, and Hong Mei

Research Papers: Requirements Management
Compliance Analysis Based on a Goal-oriented Requirement Language Evaluation Methodology

Sepideh Ghanavati, Daniel Amyot, and Liam Peyton

Motivation Matters in the Traceability Trenches

Patrick Mäder, Orlena Gotel, and Ilka Philippow

Toward Automating Requirements Satisfaction Assessment

E. Ashlee Holbrook, Jane Huffman Hayes, and Alex Dekhtyar

Research Papers: Specification
Evaluating the Completeness and Granularity of Functional Requirements Specifications: A Controlled Experiment

Sergio España, Nelly Condori-Fernandez, Arturo González, and Óscar Pastor

Improving the Effectiveness of Visual Representations in Requirements Engineering: An Evaluation of i* Visual Syntax

Daniel Laurence Moody, Patrick Heymans, and Raimundas Matulevicius

Semantic Criteria for Choosing a Language for Big-Step Models

Shahram Esmaeilsabzali, Nancy A. Day, Joanne M. Atlee, and Jianwei Niu
Research Papers: Verification

[vem:xi:] - A Methodology for Process Based Requirements Engineering .................................................. 193

Philipp Liegl, Rainer Schuster, Marco Zapletal, Christian Huemer, Hannes Werthner,
Michael Aigner, Martin Bernauer, Björn Klinger, Michaela Mayr, Ramin Mizani,
and Martin Windisch

Semantic-Based Interaction Detection in Aspect-Oriented Scenarios ............................................................ 203

Gunter Mussbacher, Jon Whittle, and Daniel Amyot

Finding Defects in Natural Language Confidentiality Requirements .............................................................. 213

Jens H. Weber-Jahnke and Adeniyi Onabajo

Short Research Papers

Exercising Due Diligence in Legal Requirements Acquisition: A Tool-supported, Frame-Based Approach ................................................................. 225

Travis Breaux

Modeling Service-Level Requirements: A Constancy Perspective ................................................................. 231

Gil Regev, Olivier Hayard, Donald C. Gause, and Alain Wegmann

Use Case to Source Code Traceability: The Developer Navigation View Point .................................................. 237

Inah Omoronyia, Guttorm Sindre, Marc Roper, John Ferguson, and Murray Wood

Trust Trade-off Analysis for Security Requirements Engineering ........................................................................ 243

Golnaz Elahi and Eric Yu

Industrial Track and Experience Papers

Industrial Track: Context and Requirements

Improving the Exchange of Requirements and Specifications between Business Partners ................................................................. 253

Manuel Reis Monteiro, Christof Ebert, and Matthias Recknagel

Understanding Chinese Characteristics of Requirements Engineering .......................................................... 261

Lin Liu, Hongyu Zhang, Fei Peng, Wenting Ma, Yuhui Shan, Jun Xu, and Tomas Burda

Using Task-oriented Requirements Engineering in Different Domains – Experiences with Application in Research and Industry ........................................................................ 267

Sebastian Adam, Joerg Doerr, Michael Eisenbarth, and Anne Gross

Industrial Track: Customer Involvement

From Feature Development to Customer Value Creation ..................................................................................... 275

Marjo Kauppinen, Juha Savolainen, Laura Lehtola, Marko Komssi, Harri Töhönen,
and Al Davis

Customer Involvement in Requirements Management: Lessons from Mass Market Software Development ................................................................. 281

Jaap Kabbedijk, Sjaak Brinkkemper, Slinger Jansen, and Bas van der Veldt
On the Use of Requirements for Driving Call-for-Tender Processes for Procuring Coarse-grained OTS Components ........................................... Juan P. Carvallo and Xavier Franch

Industrial Track: Elicitation

Linking Functional Requirements and Software Verification ........................................ Hendrik Post, Carsten Sinz, Florian Merz, Thomas Gorges, and Thomas Kropf

Bridging the Gap Between Usability and Requirements Engineering .................................. Juho Heiskari, Marjo Kauppinnen, Mikael Runonen, and Tomi Männistö

Requirements Elicitation in a Telemedicine Pain-treatment Trial ...................................... Ing Widya, Richard Buls, Bert Jan van Beijnum, Leif Sandsjö, Leendert Schaake, Rianne Huis in’t Veld, Val Jones, and Hermie Hermens

Industrial Track: Evolution

Easy Approach to Requirements Syntax (EARS) ............................................................... Alistair Mavin, Philip Wilkinson, Adrian Harwood, and Mark Novak

Evolution in Domain Model-Based Requirements Engineering for Control Systems Development ................................................................. Hans W. Nissen, Dominik Schmitz, Matthias Jarke, Thomas Rose, Peter Drews, Frank J. Heßeler, and Michael Reke

Feature-oriented Requirements Satisfy Needs for Reuse and Systems View ........................ Bernd Waldmann and Pete Jones

Industrial Track: Lessons Learned

Experiences in Developing Quantifiable NFRs for the Service-Oriented Software Platform ................................................................. Xiping Song, Beatrice Hwong, and Johannes Ros

Are Your Lights Off? Using Problem Frames to Diagnose System Failures ........................ Thein Than Tun, Michael Jackson, Robin Laney, Bashar Nuseibeh, and Yi Jun Yu

Lessons Learned from the Use of Artifact Models in Industrial Projects ................................ Sascha Konrad and Helmut Degen

Panels

Next Top Model: A Requirements Engineering Reality Panel ........................................ Orela Gotel and Jane Cleland-Huang

Requirements Engineering Education and Training: Key Challenges and Practical Solutions ................................................................. Didar Zowghi
Mini-Tutorials

How to Write and Read a Scientific Evaluation Paper ................................................................. 361
  Roel Wieringa, Hans Heerkens, and Björn Regnell
How to Select a Requirements Management Tool: Initial Steps .............................................. 365
  Orelna Gotel and Patrick Mäder
Building Multi-View System Models for Requirements Engineering ...................................... 368
  Axel van Lamsweerde

Posters

Augmenting Emotional Requirements with Emotion Markers and Emotion Prototypes .............................................................. 373
  David Callele, Eric Neufeld, and Kevin Schneider
Exploiting the Versatility of Constraint Programming over Finite Domains to Integrate Product Line Models .............................................................. 375
  Camille Salinesi, Daniel Diaz, Olfa Djebbi, Raúl Mazo, and Colette Rolland
  Teng Long, Lin Liu, Yijun Yu, and Zhi Jin
Context-Sensitive Requirements and Risk Management with IRIS ........................................... 379
  Shamal Faily and Ivan Fléchais
Analysis of Feature Configuration Workflows ........................................................................... 381
  Andreas Classen, Arnaud Hubaux, and Patrick Heymans
Modeling and Analysis of URN Goals and Scenarios with jUCMNav ........................................ 383
  Gunter Mussbacher, Sepideh Ghanavati, and Daniel Amyot
Looking for Product Line Feature Models Defects: Towards a Systematic Classification of Verification Criteria .............................................................. 385
  Camille Salinesi, Colette Rolland, Daniel Diaz, and Raúl Mazo
Learning to Write Better Requirements through Heuristic Critiques ........................................ 387
  Eric Knauss, Kurt Schneider, and Kai Stapel

Author Index ................................................................................................................................. 389