8th European Conference on Software Maintenance and Reengineering (CSMR)

24-26 March 2004
Tampere Hall, Tampere, Finland


Conference at a Glance

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<td>Invited Talk II: Stevens Lecture Award</td>
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CSMR 2004 Technical Program

The CSMR 2004 technical program will be held at Tampere City Hall on March 24-26, 2004.

Day 1 (24 March 2004)

8:45-9:00  Welcome and CSMR Opening
           Claudio Riva, Gerardo Canfora and Tarja Systä
           Location: Tampere Hall B

9:00-10:00 Invited Talk I
            Topic: Software Maintenance and Reengineering: A Computational Intelligence Perspective
            Speaker: Prof. Witold Pedrycz (University of Alberta, Canada)
            Location: Tampere Hall B
            Chair: Gerardo Canfora

10:00-10:30 Coffee Break

10:30-12:00 Session I: Architecture Design Recovery
             Chair: Inkeri Verkamo
             Location: Tampere Hall B

             Architecture-Aware Adaptive Clustering of OO Systems
             Markus Bauer (FZI Forschungszentrum Informatik, Germany)
             Mircea Trifu (Politehnica University of Timisoara, Romania)

             The Weighted Combined Algorithm: A New Linkage Algorithm for Software Clustering
             Onaiza Maqbool and Haroon Babri (Lahore University of Management Sciences, Pakistan)

             Supporting Architectural Restructuring by Analyzing Feature Models
             Ilian Pashov, Matthias Riebisch and Ilka Philippow (TU Ilmenau, Germany)

12:00-13:30 Lunch

13:30-15:00 Session II: Software Maintenance
             Chair: Giuseppe Visaggio
             Location: Tampere Hall B

             Documenting Maintenance Tasks via Maintenance Patterns
             Imed Hammouda and Maarit Harsu (Tampere University of Technology, Finland)

             Legacy Software Evaluation Model for Outsourced Maintainer
**Cristiane S. Ramos, Kathia M. Oliveira and Nicolas Anquetil (Universidade Catolica de Brasilia, Brasil)**

Evolution of understandability in OSS projects
Andrea Capiluppi, Maurizio Morisio and Patrícia Lago (Politecnico di Torino, Italy)

13:30-15:00 **Session III: Reverse Engineering**
Chair: Nicolas Anquetil  
Location: Tampere Hall A1

Reverse Engineering of Test Cases for Selective Regression Testing
*Harry M. Sneed (Software Data Service, Vienna, Austria)*

Columbus Schema for C/C++ Preprocessing
*László Vidács, Árpád Beszédes and Rudolf Ferenc (University of Szeged, Hungary)*

Integration and Interoperability between a Reverse Engineering Tool and Microsoft Visual Studio .NET
*Daniel L. Moise, Kenny Wong and Dabo Sun (University of Alberta, Canada)*

15:00-15:30 **Coffee Break**

15:30-17:30 **Session IV: Software Evolution & Integration**
Chair: Jürgen Ebert  
Location: Tampere Hall B

Assessing and Critiquing Software Systems
*Lerina Aversano, Raffaele Esposito, Teresa Mallardo and Maria Tortorella (RCOST - Research Centre On Software Technology - University of Sannio, Italy)*

Using Split Objects for Maintenance and Reengineering Tasks
*Uwe Zdun (Vienna University of Economics, Austria)*

Maintenance-oriented selection of software components
*Pasquale Ardimento, Alessandro Bianchi and Giuseppe Visaggio (Università di Bari, Italy)*

A Decision-support Framework for Component Reuse and Maintenance in Software Project Management
*Biplav Srivastava (IBM India Research Laboratory, India)*

17:30-18:30 **Invited Talk II**
Topic: Stevens Lecture on Software Development Methods  
Speaker: François Bodart (2004 Award Recipient and Lecturer)  
Location: Tampere Hall B  
Chair: Elliot Chikofsky
Day 2 (25 March 2004)

9:00-10:00 Invited Talk III

Topic: Useful Practices in Terminal Software Architecture Evolution
Speaker: Jyrki Leskela (Nokia Technology Platforms, Finland)
Location: Tampere Hall B
Chair: Claudio Riva

10:00-10:30 Coffee Break

10:30-12:00 Session V: Case Studies in Software Evolution
Chair: Claudio Riva
Location: Tampere Hall B

Lesson Learned from Attempts to Implement Daily Build
Mira Kajko-Mattsson, Marcus Jonson, Saam Koroorian (DSV, Stockholm University/KTH, Sweden)
Fredrik Westin (Front End AB, Sweden)

Adaptation of Large-Scale Open Source Software -- An Experience Report --
Markus Pizka (Technische Universität München, Institut für Informatik, Germany)

Component Reengineering Workshops: A Low-Cost Approach for Assessing Specific Reengineering Costs Across Product Lines
Klaus Marius Hansen (Computer Science Department, University of Aarhus, Denmark)

12:00-13:30 Lunch

13:30-15:00 Session VI: Automated Software Maintenance
Chair: Harry Sneed
Location: Tampere Hall B

Rewrite Systems for Symbolic Evaluation of C-like Preprocessing
Mario Latendresse (TAG/FNMOC/U.S. Navy, USA)

Automated Design Flaw Correction in Object-Oriented Systems
Adrain Trifu, Olaf Seng and Thomas Genssler (Forschungszentrum Informatik Karlsruhe, Germany)

Empirical Investigation of a Non-Intrusive Approach to Study Comprehension Cognitive Models
Marco Torchiano (Politecnico di Torino, Italy)

13:30-15:00 Session VII: Refactoring & Transformations
Chair: Kenny Wong
Location: Tampere Hall A1

Source Code Modularization Using Lattice of Concept Slices
Raihan Al-Ekram and Kostas Kontogiannis (University of Waterloo, Canada)

Refactoring JSP-Based Web Sites To The Controller-Centric Architecture
Yu Ping and Kostas Kontogiannis (University of Waterloo, Canada)

Automated Source Code Transformations on Fourth Generation Languages
Johannes Martin (Johannes Gutenberg - Universität Mainz, Germany)

15:00-15:30 Coffee Break

15:30-16:30 Session VIII: Historical analysis
Chair: Michele Lanza
Location: Tampere Hall B

Using History Information to Improve Design Flaws Detection
Daniel Ratiu ("Politehnica" University of Timisoara, Romania),
Stephane Ducasse (University of Bern, Switzerland), Tudor Girba
(University of Bern, Switzerland) and Radu Marinescu ("Politehnica"
University of Timisoara, Romania)

Application of Relation Analysis to a Small Java Software
Minna Hillebrand, Jonne Itkonen and Vesa Lappalainen (University of
Jyväskylä, Finland)

15:30-16:30 Session X: Short Papers
Chair: Jussi Koskinen
Location: Tampere Hall A1

A model to evaluate and improve the quality
Alain April, Alain Abran (University of Quebec, Canada)
Reiner Dumke (Otto von Guericke University of Magdeburg, Germany)

Business Rules Extraction from Large Legacy Systems
Xinyu Wang, Jianling Sun, Xiaohu Yang, Zhijun He (Zhejiang
University, China)
Srini Maddineni (State Street Corporation, USA)

A Metrics-Based Software Maintenance Effort Model
Jane Huffman Hayes, Sandip Patel and Liming Zhao (University of
Kentucky, USA)

16:30-17:30 Session IX: Product Families
Chair: Mira Kajko-Mattsson
Location: Tampere Hall B

Tool Support for Traceable Product Evolution
Patricia Lago, Hans van Vliet (Vrije Universiteit Amsterdam,
Eila Niemela (VTT Technical Research Centre, Finland)
Performance tuning of a product family software architecture for mobile phones

Christian Del Rosso (Nokia Research Center, Finland)

Day 3 (26 March 2004)

9:00-10:00 Invited Talk IV

Topic: TBD
Speaker: Kim Andersen (TietoEnator Consulting A/S, Denmark)
Location: Tampere Hall B
Chair: Tarja Systä

10:00-10:30 Coffee Break

10:30-12:00 Session XI: Web applications

Chair: Alessandro Bianchi
Location: Tampere Hall B

Towards the definition of a maintainability model for web applications
Giuseppe Antonio Di Lucca (Università degli Studi del Sannio, Italy)
Anna Rita Fasolino, Porfirio Tramontana (Università degli Studi di Napoli Federico II, Italy)
Corrado Aaron Visaggio (Università degli Studi del Sannio, Italy)

Experimental Results on the Alignment of Multilingual Web Sites
Filippo Ricca, Paolo Tonella, Emanuele Pianta and Christian Girardi (ITC-irst, Italy)

Towards Reengineering Web Sites to Web-services Providers
Yingtao Jiang and Eleni Stroulia (University of Alberta, Canada)

12:00-13:30 Lunch

13:30-15:00 Session XII: Tool Demonstration

Chair: Massimiliano di Penta
Location: Tampere Hall B

Metrics and fact extraction tools
Analysis, Measurement and Evaluation of Existing Legacy Systems
Harry M. Sneed (Software Data Service, Vienna, Austria)

Extracting facts with Columbus from C++ code
Rudolf Ferenc, Árpád Beszédes and Tibor Gyimóthy (University of Szeged, Hungary)

Visualization tools
Demonstration of the SoftVision Software Visualization Framework
Alexandru Telea (Eindhoven University of Technology, The Netherlands)
Matti Sillanpää (Nokia Research Center, Finland)
CodeCrawler - a Lightweight Software Visualization Tool
Michele Lanza (University of Bern, Switzerland)

**Web re-engineering, reverse engineering and migration tools**
Web Re-engineering using an Information Extraction Tool
Gerardo Canfora, Luigi Cerulo, Rita Scognamiglio (RCOST, University of Sannio, Italy)
Marco Benevento (Advanced Systems S.r.l., Italy)
WARE: a tool for Web Applications Reverse Engineering
Giuseppe A. Di Lucca (RCOST, University of Sannio, Italy)
Porfirio Tramontana, Anna Rita Fasolino and Ugo De Carlini (University of Naples “Federico II”, Italy)
MVCGen: Generating Web-based Information Systems
Thierry Bodhuin and Maria Tortorella (RCOST, University of Sannio, Italy)

15:00-15:30 **Coffee Break**

15:30-17:30 **Session XIII: Dynamic analysis**
Chair: Kai Koskimies
Location: Tampere Hall B

High-Level Polymetric Views of Condensed Run-time Information
Stephane Ducasse, Michele Lanza (University of Berne, Switzerland)
Roland Bertulli (University of Sophia-Antipolis, France)

A Distributed Architecture for Dynamic Analyses on User-Profile Data
Giuliano Antoniol and Massimiliano Di Penta (RCOST - Research Centre on Software Technology, Italy)

Managing trace data volume through a heuristical clustering process based on event execution frequency
Andy Zaidman and Serge Demeyer (University of Antwerp, Belgium)

A Dynamic Runtime Coupling Metric for Meta-Level Architectures
Youssef Hassoun, Roger Johnson and Steve Counsell (Birkbeck College, United Kingdom)

17:30-17:45 **Closing**
Claudio Riva, Gerardo Canfora and Tarja Systä.