

- 09:00 **INVITED TALK 3 (JOINT TALK WITH FAST) - Session Chair: Stefania Gnesi**
The Unreasonable Ineffectiveness of Security Engineering: An overview
Dusko Pavlovic
- 10:00 Coffee Break
- 10:30 **SESSION 6: Model Checking - Chair: Peter Lindsay**
Verification of Dynamic Data Tree with μ -Calculus Extended with Separation
Maria-del-Mar Gallardo and David Sanan
- 11:00 Parallel Partial Order Reduction with Topological Sort Proviso
Jiri Barnat, Lubos Brim and Petr Rockai
- 11:30 Structured Counterexamples for the Temporal Description Logic ALCCTL
Franz Weitl, Shin Nakajima and Burkhard Freitag
- 12:00 SMT-based Verification of LTL Specifications with Integer Constraints and its Application to Runtime Checking of Service Substitutability
Marcello M. Bersani, Luca Cavallaro, Achille Frigeri, Matteo Pradella and Matteo Rossi
- 12:30 Lunch/ Posters and Tool demos
- 13:45 **SESSION 7: Formal Approaches for Testing - Chair: Rob Hierons**
- 13:45 Testing Web Service Orchestrators in Context: a Symbolic Approach
Jose Pablo Escobedo, Christophe Gaston, Pascale Le Gall and Ana Cavalli
- 14:15 Pruning Testing Trees in the Test Template Framework by Detecting Mathematical Contradictions
Maximiliano Cristia, Pablo Albertengo and Pablo Rodriguez Monetti
- 14:45 Combinatorial Testing for VDM
Peter Gorm Larsen, Kenneth Lausdahl and Nick Battle
- 15:15 Synthesize it: from Design by Contract to Meaningful Test Input Data
Stefan Galler, Martin Weiglhofer and Franz Wotawa
- 15:45 Coffee Break
- 16:15 **SESSION 8: Formal Methods for Real-Time and Timed Analysis**
Chair: Gerardo Schneider
- 16:15 TART: Timed-Automata to Real-Time Java Tool
Niusha Hakimipour, Paul Strooper and Andy Wellings
- 16:45 Towards the Semi-Automatic Verification of Parameterized Real-Time Systems using Network Invariants
Thomas Goethel and Sabine Glesner
- 17:00 A Timed Model of Circus with the Reactive Design Miracle
Kun Wei, Jim Woodcock and Alan Burns
- 17:15 Static Enforcement of Service Deadlines
Massimo Bartoletti and Roberto Zunino
- 17:30 **CLOSING SESSION**
- 17:30 SEFM 2011 - Gerardo Schneider
- 17:45 Closing

Posters and Demos at Lunch Time

- M. Cristia, P. Albertengo and P.R. Monetti*
Fastest: a Model-Based Testing Tool for the Z Notation
L. Panizo, M. del Mar Gallardo, P. Merino, D. Sanan and A. Linares
Dam Management Based on Model Checking Techniques
N. Singh and D. Méry
EB2C: A Tool for Event-B to C Conversion Support
D. da Cruz, P. Henriques and J. S. Pinto
A tool to verify, slice and animate annotated components: GamaSlicer
A. Azurat, R. W. Purbojati, A. Perdana and H. Suhartanto
A Preliminary Exercise of a Database Application Verification using LinguSQL
Lorena Chavarria-Báez and Xiaou Li
A Petri Net-based Editor to Develop Active Rules
A. Hegedüs, I. Ráth and D. Varro
From BPEL to SAL And Back: a Tool Demo on Back-Annotation with VIATRA2
L. Cesari, R. Pugliese and F. Tiezzi
BliteC: a tool for developing WS-BPEL applications

- Tuesday September 14th
Wednesday September 15th
Thursday September 16th

Workshops

- 16 September 2010** - 08.30 Workshops registration
09:00 18:00 **W1: FAST** - 7th International Workshop on Formal Aspects of Security & Trust - Pierpaolo Degano (Univ. of Pisa, Italy), Sandro Etalle (TU Eindhoven and Univ. of Twente, NL), Joshua Guttman (Worcester Polytechnic Inst., USA)
- 17 September 2010** - 08.30 Workshops registration
09:00 18:00 **W1: FAST** - 7th International Workshop on Formal Aspects of Security & Trust - Pierpaolo Degano (Univ. of Pisa, Italy), Sandro Etalle (TU Eindhoven and Univ. of Twente, NL), Joshua Guttman (Worcester Polytechnic Inst., USA)
09:00 18:00 **W2: FLACOS** - 4th Workshop on Formal Languages and Analysis of Contract-Oriented Software - Antonio Brogi (Univ. of Pisa, Italy), Gerardo Schneider (Univ. of Gothenburg, Sweden)
09:00 18:00 **W3: Open Cert** - 4th International Workshop on Foundations and Techniques for Open Source Software Certification - Luis Barbosa (Universidade do Minho, Portugal), Antonio Cerone (UNU-IIST, United Nations University, Macau SAR China), Siraj Shaikh (Coventry University, UK)
9:00 13:00 **W4: FM+AM** - 2nd Workshop on Formal Methods and Agile Methods - Stefan Gruner (Univ. of Pretoria, South Africa)
- 18 September 2010**
9:00 18:00 **W2: FLACOS** - 4th Workshop on Formal Languages and Analysis of Contract-Oriented Software - Antonio Brogi (Univ. of Pisa, Italy), Gerardo Schneider (Univ. of Gothenburg, Sweden)
9:00 18:00 **W3: Open Cert** - 4th International Workshop on Foundations and Techniques for Open Source Software Certification - Luis Barbosa (Universidade do Minho, Portugal), Antonio Cerone (UNU-IIST, United Nations University, Macau SAR China), Siraj Shaikh (Coventry University, UK)

Program at a glance

		Monday September 13 2010		Tuesday September 14 2010		Wednesday September 15 2010		Thursday September 16 2010		Friday September 17 2010		Saturday September 18 2010	
09.00	T1 T3	09.00	Opening	09.00	Invited Talk	09.00	Invited Talk	09.00	W1 W2	09.00	W2 W3		
10.30		09.15	Invited Talk	10.00		10.00		10.20	W3 W4	10.20			
10.30	Coffee break	10.15	Coffee break	10.00	Coffee break	10.00	Coffee break	10.20	Coffee break	10.20	Coffee break		
11.00		10.45		10.30		10.30		11.00	W1 W2	11.00	W2 W3		
11.30	T1 T3	10.45	Session 1	10.30	Session 4	10.30	Session 6 - W1	11.00	W1 W2	11.00	W2 W3		
13.00		12.45		12.30		12.30		13.00	W3 W4	13.00			
13.00	Lunch	12.45	Lunch	12.30	Lunch	12.30	Lunch	13.00	Lunch	13.00	Lunch		
14.30		Poster and tool demos	14.00	Poster and tool demos	13.45	Poster and tool demos	13.45	Poster and tool demos	14.30	Lunch	14.30	Lunch	
14.30	T2 T4	14.00	Session 2	13.45	Session 5	13.45	Session 7 - W1	14.30	W1 W2	14.30	W2 W3		
16.00		16.00		15.30		15.45		15.20	W3	15.20			
16.00	Coffee break	16.00	Coffee break	15.30	Coffee break	15.45	Coffee break	15.20	Coffee break	15.20	Coffee break		
16.30		16.30		16.00		16.15		16.00		16.00			
16.30	T2 T4	16.30	Session 3	16.30	EXCURSION TO LUCCA	16.15	Session 8 - W1	16.00	W1 W2	16.00	W2 W3		
18.30		18.00				17.30		18.00	W3	18.00		18.00	
19.00	WELCOME RECEPTION			16.30	SOCIAL DINNER	17.45	Closing						
21.00				23.45									

SEFM²⁰¹⁰

8th International Conference on Software Engineering and Formal Methods



13-18 September 2010, CNR, Pisa, Italy



SEFM2010 is the eighth IEEE International Conference on Software Engineering and Formal Methods. The aim of the conference is to bring together researchers and practitioners from academia, industry and government to advance the state-of-the-art in formal methods, to scale up their application in software industry and to encourage their integration with practical engineering methods.

SEFM 2010 is hosted by

Formal Methods && Tools Lab (FM&&T) at the Institute of Information Science and Technologies of the Italian National Research Council (ISTI-CNR) and it takes place at

*Area della Ricerca CNR di Pisa
Via Moruzzi, 1 56124 Pisa - Italy.*

General Chair	<i>Andrea Maggiolo-Schettini</i> (Pisa University, Italy)
Program Co-Chairs	<i>José Luiz Fiadeiro</i> (University of Leicester, UK) <i>Stefania Gnesi</i> (ISTI-CNR, Pisa, Italy)
Finance Chair	<i>Alessandro Fantechi</i> (Florence University, Italy)
Workshop Chair	<i>Maurice ter Beek</i> (ISTI-CNR, Pisa, Italy)
Tutorial Chair	<i>Laura Semini</i> (Pisa University, Italy)
Poster & Demo Tool Chairs	<i>Franco Mazzanti</i> (ISTI-CNR, Pisa, Italy) <i>Gianluca Trentanni</i> (ISTI-CNR, Pisa, Italy)
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Zhiming Liu (UNU-IIST, Macao SAR, China)	Andrea Maggiolo-Schettini (Pisa University, Italy)

SEFM²⁰¹⁰

TUTORIALS PROGRAM

Monday September 13rd

08:30	Registration
09:00	Tutorial 1: Can we Computerize an Elephant? <i>by David Harel</i> Tutorial 3: Outsourcing vs. Compliance in Software Service Viewpoint <i>by Yudistira Asnar, Andrea Micheletti and Fabio Massacci</i>
10:30	Coffee Break
11:30	Tutorial 1: Can we Computerize an Elephant? <i>by David Harel</i> Tutorial 3: Outsourcing vs. Compliance in Software Service Viewpoint <i>by Yudistira Asnar, Andrea Micheletti and Fabio Massacci</i>
13:00	Lunch
14:30	Tutorial 2: Structured Wide-Area Programming <i>by Jayadev Misra</i> Tutorial 4: Multi-dimensional Co-engineering of Autonomous Systems <i>by Manuela L. Bujorianu and Antonios Tsourdos</i>
16:00	Coffee Break
16:30	Tutorial 2: Structured Wide-Area Programming <i>by Jayadev Misra</i> Tutorial 4: Multi-dimensional Co-engineering of Autonomous Systems <i>by Manuela L. Bujorianu and Antonios Tsourdos</i>
19:00	Welcome Reception

CONFERENCE PROGRAM

Tuesday September 14th

08:30	Registration
09:00	Opening
09:15	INVITED TALK 1 - Session Chair: Andrea Maggiolo-Schettini Adaptive Software Needs Continuous Verification <i>Carlo Ghezzi</i>
10:15	Coffee Break
10:45	SESSION 1: Formal Requirement Analysis and Specification - Chair: Dominique Méry
10:45	Non-local Choice and Implied Scenarios <i>Haitao Dan, Rob Hierons and Steve Counsell</i>
11:15	Temporaljmlc: A JML Runtime Assertion Checker Extension for Specification and Checking of Temporal Properties <i>Faraz Hussain and Gary Leavens</i>
11:45	User Queries for Specification Refinement Treating Shared Aspect Join Points <i>Emilia Katz and Shmuel Katz.</i>
12:15	Assessing the Quality of B Models <i>Adrien de Kermadec, Frederic Dadeau and Fabrice Bouquet</i>
12:45	Lunch/ Posters and Tool demos
14:00	SESSION 2: Special track in memory of Geoff Dromey - Chair: Antonio Cerone
14:00	Behavior Trees: from Systems Engineering to Software Engineering <i>Peter Lindsay</i>

14:40	Behavior Engineering - A Scalable Modeling and Analysis Method <i>Daniel Powell</i>
15:20	Integrating Requirements: The Behavior Tree Philosophy <i>Kirsten Winter, Ian J. Hayes and Robert Colvin</i>
16:00	Coffee Break
16:30	SESSION 3: Program Analysis - Chair: Mizuhito Ogawa
16:30	Assertion-based Slicing and Slice Graphs <i>José Barros, Daniela da Cruz, Pedro Rangel Henriques and Jorge Sousa Pinto</i>
17:00	Architecture Recovery using Latent Semantic Indexing and K-Means: an Empirical Evaluation <i>Michele Risi, Giuseppe Scanniello and Genoveffa Tortora</i>
17:30	A Method for Testing Software Systems Based on State Design Pattern using Symbolic Execution <i>Cristina Tudose and Radu Oprisa</i>
17:45	A Toolkit for Generating Sentences from Context-Free Grammars <i>Zhiwu Xu, Lixiao Zheng and Haiming Chen</i>

Wednesday September 15th

09:00	INVITED TALK 2 - Session Chair: José Luiz Fiadeiro Fly Me to the Moon: Verification of Aerospace Systems <i>Dimitra Giannakopoulou</i>
10:00	Coffee Break
10:30	SESSION 4: Formal Approaches to SOC - Chair: Carlo Montangero
10:30	Time and Data-Aware Analysis of Graphical Service Models in Reo <i>Natallia Kokash, Christian Krause and Erik de Vink</i>
11:00	A Formal Model for Work Flows <i>Christian Leuxner, Bernd Spanfelner and Wassiou Sitou</i>
11:30	Back-annotation of Simulation Traces with Change-Driven Model Transformations <i>Ábel Hegedüs, Gábor Bergmann, István Ráth and Daniel Varro</i>
12:00	Designing Log Architectures for Legal Evidence <i>Eduardo Mazza, Daniel Le Métayer and Maire-Laure Potet</i>
12:30	Lunch / Posters and Tool demos
13:45	SESSION 5: Applications of Formal Methods - Chair: Franco Mazzanti
13:45	A Scalable Fluid Flow Process Algebraic Approach to Emergency Egress Analysis <i>Mieke Massink, Diego Latella, Michael Harrison and Andrea Bracciali</i>
14:15	Safety Assessment using Behavior Trees and Model Checking <i>Peter Lindsay, Kirsten Winter and Nisansala Yatapanage</i>
14:45	Model Checking Ad Hoc Network Routing Protocols: ARAN vs. endairA <i>Davide Benetti, Massimo Merro and Luca Viganò</i>
15:15	Refinement-Friendly Bigraphs and Spygraphs <i>Michael Goldsmith and Sadie Creese</i>
15:30	Coffee Break
16:00	Social event: Excursion to Lucca, visit of the town and Social Dinner