Sunday, October 14th

	Room: tba
16:00	**RERS Greybox Challenge** **F.Howar, M.Isberner, M.Merten, B.Steffen, D.Beyer** **Introduction and Results of the Offline Challenge** **Brain Storming** **Presentations of the Online Problems**
18.30	**Registration & Reception**

Monday, October 15th

	Room: tba	Room: tba	Room:tba
8:45	**Opening ISoLA**		
9:00	**Runtime Verification** **Session 1: Introduction and Keynote** **Runtime Verification: the Application Perspective** *Y. Falcone, L. Zuck* **What Does AI Have to Do with RV? (invited talk)** *K. Havelund*	**Eternals** **Session 1: Models** **Adaptable and Evolving Software for Eternal Systems** *R. Hähnle, I. Schaefer* **Model-based Compatibility Checking of System Modifications** *Poetzsch-Heffter, C. Feller, I. W. Kurnia, Y. Welsch* **A Generic Platform for Model-Based Regression Testing** *P. Zech, M. Felderer, P. Kalb, R. Breu*	**Linux Driver Verification** **Session 1: D. Beyer** **Linux Driver Verification** *D. Beyer, A. Petrenko* **Linux Device-Drivers Verification Challenges** *A. Khoroshilov, V. Mutilin, E. Novikov* **BDD-Based Software Model Checking with CPAchecker** *A. Stahlbauer* **Pointer Analysis with Uninterpreted Functions** *M. Mandrykin*
	Discussion	**Discussion**	**Discussion**
10:30	**COFFEE BREAK**		
11:00	**Runtime Verification** **Session 2: Combining RV with other Techniques** **A unified approach for**	**Eternals** **Session 2: Programming Languages and Components**	**Linux Driver Verification** **Session 2: A. Petrenko** **Using Aspect-Oriented Programming for**

	static and runtime verification: framework and applications *W. Ahrendt, G. Pace, G. Schneider* **Statistical Model Checking QoS properties of Systems with SBIP** *A. Legay, B. Delahaye, S. Bensalem, M. Bozga, C. Jegourel, A. Nouri* **Bounded-Interference Sequentialization for Testing Concurrent Programs** *N. Razavi, A. Holzer, A. Farzan*	**Challenges in defining a programming language for provably correct dynamic analyses** *E. Bodden, A. Follner, S. Rasthofer* **A Liskov Principle for Delta-Oriented Programming** *R. Hähnle, I. Schaefer* **A Object Group-Based Component Model** *M. Lienhardt, M. Bravetti, D. Sangiorgi*	**Preparing C Programs for Static Verification** *E. Novikov* **Conditional Model Checking and Applications to Driver Verification** *D. Beyer* **On Our Way to Apply Model Checking on the Kernel** *A. Lissy*
	Discussion	**Discussion**	**Discussion**
12:30	**LUNCH**		
15:00	**Runtime Verification** **Session 3: Applications of RV (1)** **Monitoring Temporal Information Flow** *R. Dimitrova, B. Finkbeiner, M. Rabe* **Runtime Verification of Biological Systems** *A. Legay, A. David, K. G. Larsen, S. Seadwards, D. Poulsen* **Behavioral Specification based Runtime Monitors for OSGi Services** *J. Blech, Y. Falcone, H. Ruess, B. Schätz*	**Eternals** **Session 3: Eternal systems** **Automated Inference of Models for Black Box Systems based on Interface Descriptions** M. Merten, F. Howar, B. Steffen, P. Pelliccione, M. Tivoli **Eternal Embedded Software: Towards Innovation Experiment Systems** *J. Bosch, U. Eklund* **Scientific workflows: eternal components, changing interfaces, varying compositions** *A.-L. Lamprecht, T. Margaria*	**Linux Driver Verification** **Session 3: A. Khoroshilov** **Coccinelle: Theory and Practice** *J. Lawall* **Explicit-Value Analysis based on CEGAR and Interpolation** *S. Löwe* **Verification of Linux Device-Driver Code - The unsigned int Case** ***M. Rathgeber, C. Zengler, W. Küchlin*** **Discussion of Future Directions in Working Groups** **Summary Presentation** **Closing Remarks**

	Discussion	Discussion	Discussion
16:30	COFFEE BREAK		
17:00	**Runtime Verification Session 4: Applications of RV (2)** **Dynamic information-flow analysis for multi-threaded applications** *L. Mounier, E. Sifakis* **Modelling and Decentralised Runtime Control of Self-stabilising Power Micro Grids** *A. Hartmanns, H. Hermanns* **A Case for "Piggyback" Runtime Monitoring** *S. Hallé, R. Tremblay-Lessard*	**Bioscientific Data Processing and Modeling Session 1:** **Bioscientific Data Processing and Modeling** *J. Kok, A.-L. Lamprecht, F. J. Verbeek, M. Wilkinson* **Using multiobjective optimization and energy minimization to design an isoform-selective ligand of the 14-3-3 protein** *H. Sanchez-Faddeev, M. Emmerich, F.J. Verbeek, A. H. Henry, S. Grimshaw, H. Spaink, H. W. van Vlijmen, A. Bender* **Segmentation for High-throughput Image Analysis: Watershed Masked Clustering** *K. Yan, F. J. Verbeek*	
	Discussion	Discussion	Discussion
18:30			

Tuesday, October 16th

	Room: tba	Room: tba	Room:tba
9:00	**Timing Constraints Session 1:** **Timing Constraints: Theory Meets Practice** *B. Lisper, J. Nordlander, S. Quinton* **A Simple and Flexible Timing Constraint Logic** *J. Nordlander, B. Lisper* **Generalizing Weakly-Hard Constraints** *S. Quinton, R. Ernst*	**Learning Techniques for Software Verification and Validation Session 1:** **Learning Techniques for Software Verification and Validation** *C. Pasareanu, M. Bobaru* **Learning stochastic timed automata from sample executions** *A. Pedro, P. Crocker, S. Melo de Sousa* **Learning Minimal Deterministic Automata from Inexperienced Teachers** *M. Leucker, D. Neider*	**Handling Heterogeneity in Formal Development of HW and SW Systems** **Handling heterogeneity in formal developments of hardware and software systems** *Y. Ait-Ameur, D. Méry* **Leveraging formal verification tools for DSML users: a process modeling case study** *F. Zalila, X. Crégut, M. Pantel* **An Ontological Pivot Model to Interoperate Heterogeneous User Requirements** *I. Boukhari, L. Bellatreche, S. Jean*
	Discussion	**Discussion**	**Discussion**
10:30	**COFFEE BREAK**		
11:00	**Timing Constraints Session 2:** **Modeling a BSG-E Automotive System with the Timing Augmented Description language** *M.-A. Peraldi-Frati, A. Goknil, M. Adedjouma, P.-Y. Gueguen* **Formal Analysis of**	**Learning Techniques for Software Verification and Validation Session 2:** **Model learning and test generation for Event-B decomposition** *I. Dinca, F. Ipate, A. Stefanescu*	**Processes and Data Integration in the Networked Healthcare Session 1:** **Processes and Data Integration in the Networked Healthcare** *A. Braun von Reinersdorff, T. Margaria, C. Rasche* **Simple Modeling of**

	TESLA protocol in the Timed OTS/CafeOBJ method *I. Ouranos, K. Ogata, P. Stefaneas* **Formal Specification and Verification of Task Time Constraints for Real-Time Systems** *N. Ge, M. Pantel, X. Crégut*	**Inferring Semantic Interfaces of Data Structures** *F. Howar, M. Isberner, B. Steffen, O. Bauer, B. Jonsson* **Learning-Based Test Programming for Programmers** *A. Alipour, T. Bauer, A. Groce, A. Fern, M. Erwig, J. Pinto*	**Executable Role-based Workflows: An Application in the Healthcare Domain** *T. Margaria, S. Boßelmann, B. Kujath* **Considerations for Healthcare Applications in a Platform as a Service Environment** *A. Holubek, C. Metzger* **Reha-Sports: The Challenge of Small Margin Healthcare Accounting** *M. Doedt, T. Göke, J. Pardo, B. Steffen*
	Discussion	**Discussion**	**Discussion**
12:30	**LUNCH**		
13:30	**Timing Constraints Session 3:** **The WCET Analysis Tool CalcWcet167** *R. Kirner* **Abstract Execution for Event-Driven Systems - an Application from Automotive/Infotainment Development** *K. Birken*	**Bioscientific Data Processing and Modeling Session 2:** **Efficient and Robust Shape Retrieval from Deformable Templates** *A. Nezhinsky, F. J. Verbeek* **OWL-DL domain models as abstract workflow models** *I. Wood, B. Vandervalk, L. McCarthy, M. Wilkinson*	**Processes and Data Integration in the Networked Healthcare Session 2:** **Information Logistics in eHealth at the Fraunhofer-ISST (invited talk)** *J. Rehof*
	Discussion	**Discussion**	**Discussion**
14:30			
15:00	**Outing and Conference Dinner**		

Wednesday, October 17th

	Room: tba	Room: tba	Room:tba
9:00	**Diversity/Approaches for Mastering Change** **Session 1: Formal Approaches to Product Lines** **Approaches for Mastering Change** *I. Schaefer, M. Lochau, M. Leucker* **A formal approach to software product families** *D. Thoma, M. Leucker* **Parameterized Preorder Relations for Model-based Testing of Software Product Lines** *M. Lochau, J. Kamischke*	**Intelligent Transportation Systems** **Session 1** **Formal Methods for Intelligent Transportation Systems** *A. Fantechi, F. Flammini, S. Gnesi* **Model-driven V&V processes for computer based control systems: a unifying perspective** *F. Flammini, S. Marrone, N. Mazzocca, R. Nardone, V. Vittorini* **Formal Methods in Avionic Software Certification: the DO-178C Perspective** *G. Gigante, D. Pascarella* **Product Line Engineering Applied to CBTC Systems Development** *A. Ferrari, G. O. Spagnolo, G. Martelli, S. Menabeni*	**LearnLib Tutorial: From Finite Automata to Register Interface Programs** **F Howar, M.Isberner, M.Merten B.Steffen** **Session 1:** **Principles of Automata Learning** **Hands-On Experimentation with the LearnLib**
	Discussion	**Discussion**	**Discussion**
10:30	**COFFEE BREAK**		
11:00	**Diversity/Approaches for Mastering Change** **Session 2: Reasoning about Evolution** **SmartTies - Management of Safety-Critical Developments** *S. Autexier, D. Dietrich,*	**Intelligent Transportation Systems** **Session 2** **Improving Verification Process in Driverless Metro Systems:** *S. Marrone, R. Nardone,*	**LearnLib Tutorial** **Session 2:** **Automata Learning in Practice**

	D. Hutter, C. Lüth, C. Maeder **Tracking Behavioral Constraints during Object-Oriented Software Evolution** *J. Dovland, E. B. Johnsen, I. Chieh Yu* **Towards the Verification of Adaptable Processes** *M. Bravetti, C. Di Giusto, J.A. Pérez, G. Zavattaro*	*A. Orazzo, I. Petrone, L. Velardi* **Optimising Ordering Strategies for Symbolic Model Checking of Railway Interlockings** *K. Winter* **Automated Generation of Safety Requirements for Railway Interlocking Systems** *A. E. Haxthausen*	**Hands-On Experimentation with the LearnLib**
	Discussion	**Discussion**	**Discussion**
12:30	**LUNCH**		
15:00	**Diversity/Approaches for Mastering Change** **Session 3: Delta-Session** **Conflict Detection in Delta-Oriented Programming** *M. Lienhardt, D. Clarke* **Family-based Analysis of Type Safety for Delta-Oriented Software Product Lines** *F. Damiani, I. Schaefer* **Delta-oriented Monitor Specification** *E. Bodden, K. Falzon, K. I Pun, V. Stolz*	**Intelligent Transportation Systems** **Session 3** **Distributing the Challenge of Model Checking Interlocking Control Tables** *A. Fantechi* **Short oral presentations:** **Formal Verification of European Interlocking Requirements in xUML** *H. Hansen, J. Ketema, B. Luttik, J. van de Pol* **Formal Verification and Validation of ERTMS Industrial**	**LearnLib Tutorial** **Session 3:** **Treating Data Flow: Learning Register Interface Programs** **Hands-On Experimentation with the LearnLib**

		Railway Train Spacing System *A. Cimatti, R. Corvino, A. Lazzaro, I. Narasamdya, T. Rizzo, M. Roveri, A. Sanseviero, A. Tchaltsev* **Using CSP||B for railway modelling** *F. Moller, H. N. Nguyen, M. Roggenbach, S. Schneider, H. Treharne*	
	Discussion	**Discussion**	**Discussion**
16:30	**COFFEE BREAK**		
17:00	**Diversity/Approaches for Mastering Change** **Session 4: Behavioral Descriptions of Product Lines** **A Vision for Behavioural Model-Driven Validation of Software Product Lines** *X. Devroey, M. Cordy, G. Perrouin, E. Kang, P.-Y. Schobbens, P. Heymans, A. Legay, B. Baudry* **A compositional framework to derive product line behavioural descriptions** *P. Asirelli, M. ter Beek, A. Fantechi, S. Gnesi*	**Model-based Testing and Model Inference** **Session 1:** **Model-based Testing and Model Inference** *K. Meinke, N. Walkinshaw* **Algorithmic Improvements on Regular Inference of Software Models and Perspectives for Security Testing** *R. Groz, M. N. Irfan, C. Oriat* **Test-Case Design by Feature Trees** *T. Kitamura, N. Do, H. Ohsaki, L. Fang, S. Yatabe*	**Quantitative Modelling and Analysis** **Quantitative Modelling and Analysis** *J.-P. Katoen, K. G. Larsen* **Schedulability of Herschel-Planck Revisited Using Statistical Model Checking** *A. David, A. Legay, M. Mikučionis, K. G. Larsen* **Checking Correctness of Services Modeled as Priced Timed Automata** *A. Causevic, C. Seceleanu, P. Pettersson*
	Discussion	**Discussion**	**Discussion**

18:30	
20:00	**Fish dinner (optional)**

Thursday, October 18th

	Room: tba	Room: tba	Room:tba
9:00	**Model-based Testing and Model Inference** **Session 2:** **Model-Based Static Code Analysis For MATLAB Models** *S. Mukhopadhyay, Z. Lu* **An Incremental Learning Algorithm for Extended Mealy Automata** *K. Meinke, F. Niu*	**Software Aspects of Robotic Systems** **Session 1:** **Software Aspects of Robotic Systems** *J. Knoop, D. Schreiner* **Realizing a Role-based Language for Collaborative Robot Applications** Sebastian Götz, Max Leuthauser, Christian Piechnick, and Claas Wilke TU Dresden, Germany **Evolutionary Development of a Walk Controller for Humanoid Robots** Dietmar Schreiner, TU Wien, Austria	**Process-oriented Geoinformation Systems and Applications** **Session 1:** **Process-Oriented Geoinformation Systems and Applications** *H. Asche* **Design and Implementa-tion of a Data Usability Processor into an Automated Processing Chain for Optical Remote Sensing Data (invited talk)** ***E. Borg, B. Fichtelmann, H. Asche*** **Concepts and Techniques of an Online 3D Atlases - Challenge in Cartogrphic 3D Geovisualization** *R. Sieber, L. Hollenstein, R. Eichenberger*
	Discussion	**Discussion**	**Discussion**
10:30	**COFFEE BREAK**		
11:00	**RERS Grey-Box Challenge** **F. Howar, M. Isberner, M.Merten, D. Beyer** **Results of the Online Challenge:**	**Software Aspects of Robotic Systems** **Session 2:** **Working Group on Future Challenges for Computer Science in Robotics**	**Process-oriented Geo-information Systems and Applications** **Session 2:** **Comparison of Machine Learning Algorithms with Maximum Likelihood for Supervised Crop Type**

	- **Announcement of the Winners** - **Presentation of the winning solutions** **Feedback and Resumee**	**Roadmapping for Cloud-Based Cyber-Physical Systems and Robotic Swarms**	**Classification on Remotely Sensed Data** *I. Nitze, H. Asche* **Web-based on-demand service for the generation of quality maps: concept and processing pipeline** *H. Asche, R. Engemaier*
	Planning for 2013	**Discussion**	**Discussion**
13:00	**Closing ISoLA**		
	LUNCH		
16:00	**ISoLA Business meeting with coffee and cake**		