Program for ICFEM 2017 Main Conference

Monday, 13 November 2017

8:00 am -8:45 am	**Registration**
8:45 am -9:00 am	**Opening**
9:00 am -10:00 am	**Keynote Speech** David S. Rosenblum **The Challenges of Probabilistic Thinking**
10:00 am -10:30 am	**Coffee Break**
10:30 am -12:00 pm	**Program Analysis** Hao Jiang, Hongli Yang, Shengchao Qin, Zhendong Su, Jian Zhang and Jun Yan. **Detecting Energy Bugs in Android Apps Using Static Analysis** Tingting Wu, Yunwei Dong, TsongYueh Chen, Mingyue Jiang, Man Lau, Fei-Ching Kuo and Sebastian Ng. **Integration of Metamorphic Testing with Program Repair Methods Based on Adaptive Search Strategies and Program Equivalence** Yunhao Liu, Xiaohong Li, Zhiyong Feng and Jianye Hao. **An Improved Android Collusion Attack Detection Method Based on Program Slicing**

12:00 pm -2:00 pm	**Lunch**
2:00 pm -3:30 pm	**Program Analysis** Manuel Töws and Heike Wehrheim. **Policy Dependent and Independent Information Flow Analyses** Xin Li and Mizuhito Ogawa. **A Sliding-Window Algorithm for On-The-Fly Interprocedural Program Analysis** Zhiwu Xu, Cheng Wen and Shengchao Qin. **Learning Types for Binaries**
3:30 pm -4:00 pm	**Coffee Break**
4:00 pm -6:00 pm	**Modeling** Jingyi Wang, Xiaohong Chen, Jun Sun and Shengchao Qin. **Improving Probability Estimation through Active Probabilistic Model Learning** Xuan Bach Le, Thanh Toan Nguyen, Wei-Ngan Chin and Aquinas Hobor. **A Certified Decision Procedure for Tree Shares** Yihai Chen, Bofang Zhang, RidhaKhedri and Huaikou Miao. **A Framework of Multi-view Reconciliation for Medical Device Software** Juliana Küster Filipe Bowles and Marco B. Caminati. **A Flexible Approach for Finding Optimal Paths with Minimal Conflicts**

Tuesday, 14 November 2017

8:00 am -9:00 am	**Registration**
9:00 am -10:00 am	**Keynote Speech** Moshe Y. Vardi **A Logical Revolution**
10:00 am -10:30 am	**Coffee Break**
10:30 am -12:00 pm	**Formal Analysis** Adnan Rashid and Osman Hasan. **Formal Analysis of Linear Control Systems Using Theorem Proving** Patrick Doolan, Graeme Smith, Chenyi Zhang and Padmanabhan Krishnan. **Improving the Scalability of Automatic Linearizability Checking in SPIN** Fabian Benduhn, Thomas Thüm, Ina Schaefer and Gunter Saake. **Modularization of Refinement Steps for Agile Formal Methods**
12:00 pm -2:00 pm	**Lunch**
2:00 pm -3:30 pm	**Timed Automata** Jiaying Li, Jun Sun, Bo Gao and Étienne André. **Classification Based Parameter Synthesis for Parametric Timed Automata**

	Zhengkui Zhang, Brian Nielsen, Kim Guldstrand Larsen, Gilles Nies, Marvin Stenger and Holger Hermanns. **Pareto Optimal Reachability Analysis for Simple Priced Timed Automata** Guoqiang Li, Yuwei Wang, Yunqing Wen and Shoji Yuen. **Nested Timed Automata with Diagonal Constraints**
3:30 pm -4:00 pm	**Coffee Break**
4:00 pm -6:00 pm	**Verification** Zhao Duan and Cong Tian. **Verifying Temporal Properties of C Programs via Lazy Abstraction** Xiaohong Chen, Ling Yin, Yijun Yu and ZhiJin. **Transforming Timing Requirements into CCSL Constraints to Verify Cyber-Physical Systems** Thomas Göthel, Nils Jähnig and Simon Seif. **Refinement-Based Modelling and Verification of Design Patterns for Self-Adaptive Systems** Dongjing Miao and Zhipeng Cai. **Parameterized Complexity of Resilience Decision for Database Debugging**
6:30 pm	**Banquet**

Wednesday, 15 November 2017

8:00 am -9:00 am	**Registration**
9:00 am -10:00 am	**Keynote Speech** Wang Yi **Towards Customizable CPS: Composability, Efficiency and Predictability**
10:00 am -10:30 am	**Coffee Break**
10:30 am -12:00 pm	**Specification and Languages** Min Zhang, Yuxin Deng and Guoqing Lei. **An Algebraic Approach to Automatic Reasoning for NetKATBased on its Operational Semantics** Marie Farrell, Rosemary Monahan and James Power. **Combining Event-B and CSP: An Institution Theoretic Approach to Interoperability** Long H. Pham, Ly Ly Tran Thi and Jun Sun. **Assertion Generation through Active Learning**
12:00 pm -2:00 pm	**Lunch**
2:00 pm -3:30 pm	**Model Checking** Taolue Chen, Fu Song and Zhilin Wu. **Model Checking Pushdown Epistemic Game Structures**

	Si Liu, Peter Csaba Ölveczky, JatinGanhotra, Indranil Gupta and José Meseguer. **Exploring Design Alternatives for RAMP Transactions through Statistical Model Checking** Sylvain Conchon, David Declerck and Fatiha Zaidi. **Model Checking Safety Properties of Parameterized x86-TSO Programs**
3:30 pm -4:00 pm	**Coffee Break**
4:00 pm -5:00 pm	**Security** Li Li, Naipeng Dong, Jun Pang, Jun Sun, Guangdong Bai, Yang Liu and Jin Song Dong. **A Verification Framework for Stateful Security Protocols** Yi Yin, Yun Wang, YuichiroTateiwa, Yoshiaki Katayama and Naohisa Takahashi. **Inconsistency Analysis of Time-Based Security Policy and Firewall Policy**
5:00 pm -5:15 pm	**Closing**