ICFEM 2025 Program (Hangzhou, GMT+8)

	Day 0 - November 10, 2025
8:30 - 17:30	Registration
9:00 - 12:00	**Tutorial: Analysis (Model Checking) Techniques for Markov Decision Processes (MDPs)** **Speaker: Prof. P. S. Thiagarajan**
	Day 1 - November 11, 2025
8:30 - 9:00	Registration & Welcome Coffee
9:00 - 10:00	**Opening Keynote 1 by Prof. Jifeng He**
10:00 - 10:30	Coffee Break
	Session 1: Formal Verification of Security and Cryptographic Protocols
	Chair: TBD
10:30 - 12:30	[3] *Formal Verification of Physical Layer Security Protocols for Next-Generation Communication Networks* Kangfeng Ye, Roberto Metere, Jim Woodcock and Poonam Yadav [28] *Formal Construction of Threat Detections from Attack Trees* Dumitru Bogdan Prelipcean, Catalin Dima and Daniele Varacca [37] *ZK-ProVer: Proving Programming Verification in Non-Interactive Zero-Knowledge Proofs* Haoyu Wei, Jingyu Ke, Ruibang Liu and Guoqiang Li [45] *Formal Modeling and Verification of Blockchain Consensus Protocols: A Case Study on ChainMaker* Minfan Xu, Shuo Zhou, Xian Xu and Huan Long
12:30 - 14:00	Lunch Break
14:00 - 15:00	**Keynote 2 *by Prof. Jim Woodcock***
15:00 - 15:30	Coffee Break
	Session 2: LLMs and Formal Methods
	Chair: TBD
15:30 - 17:30	[4] *Automata-Based Steering Method for Diverse Structured Generation of Large Language Models* Xiaokun Luan, Zeming Wei, Yihao Zhang and Meng Sun [8] *LLM-SYM: Integrating Symbolic Methods and Large Language Models for Automated Theorem Proving* Yifan Wu, Yanhong Huang and Jianqi Shi [11] *Formalizing Requirements into Dafny Specifications with LLMs* Yi-Han Lu, Xue-Yang Zhu, Wenhui Zhang and Rongjie Yan [36] *A Test-Driven Approach for Refining Use Case Descriptions of Software Requirements with LLMs* Haibo Li, Lixiao Zheng and Qihang Cai

Day 2 - November 12, 2025	
9:00 - 10:00	**Keynote 3** *by Mariëlle Stoelinga*
10:00 - 10:30	Coffee Break
	Session 3: Runtime Verification, Control, and Robotics
	Chair: TBD
10:30 - 12:00	**[10]** *Neural-Symbolic System Control Adjustment Based on Runtime Verification*
	Hongxu Zhu, Wanwei Liu and Ji Wang
	[9] *Modeling and Analysis of Cyber-Physical Systems in the Hybrid pi-Calculus Using Extended Sequence Diagrams*
	Xiong Xu, Jixiang Miao, Shuling Wang and Jean-Pierre Talpin
	[65] *Formal Modelling of Fault Tolerant Robotic Missions*
	Elena Troubitsyna
12:00 - 13:30	Lunch Break
	Session 4: Program Analysis and Software Reliability
	Chair: TBD
13:30 - 15:30	**[18]** *Detecting Vector Container Errors in C++ Programs via Abstract Interpretation*
	Liusiyu Liu, Chen Liqian, Fan Guangsheng, Yin Banghu, Huang Chun and Wang Ji
	[41] *Synthesizing Loops from Linear Ranking Functions*
	Rui-Juan Jing, Yaru Yuan, Yuxing Cai, Yi Li and Changbo Chen
	[25] *MetaLogic: Robustness Evaluation of Text-to-Image Models Using Logically Equivalent Prompts*
	Yifan Shen, Yangyang Shu, Hye-young Paik and Yulei Sui
	[48] *Model-based test case generation from UML sequence diagrams using extended fnite state machines*
	Maurício Rocha, Adenilso Simao and Thiago Souza
15:30 - 16:00	Coffee Break
	Session 5: SMT and Quantitative Verification
	Chair: TBD
16:00 - 17:50	**[60]** *Avoiding Larger Conflict Regions in CDCL-Style Methods for Solving SMT-NRA*
	Xinpeng Ni, Tianyi Ding and Bican Xia
	[61] *Formal Modeling of Reinforcement Learning Systems with SMT*
	Tianyi Ding, Yuxin Lin and Meng Sun
	[64] *Towards High-Level SMT Program Modeling: Bounded Integers, Simplified Structs, and Metaprogramming*
	Xiangyu Li
	[56] *Quantitative Verification for Temporal Properties of Massive Linear Systems*
	Qing Liu, Yuntao Li, Sung Woo Choi, Luan Viet Nguyen and Hoang-Dung Tran
	Conference Banquet 🍽
18:30 - 19:00	**Location:** Jinxi Hotel
19:00 - 20:00	Cocktail Reception
	Dinner
	Awards Ceremony
20:00 - 20:30	Best Paper Awards Presentation
	Recognition of Outstanding Contributions
	Announcement of ICFEM 2026 Location and Dates
20:30 - 21:00	Networking and Celebration

	Day 3 - November 13, 2025
9:00 - 10:00	**Keynote 4** *by Yongwang Zhao*
10:00 - 10:30	Coffee Break
10:30 - 12:30	**Session 6: Logic, Automata, and Concurrent Systems**
	Chair: TBD
	[22] *BCCIC3: Batch Clause Construction Enhanced Generalization in IC3*
	Yi Chen, Liangze Yin, Xinyi Gong, Ji Wang and Ting Wang
	[42] *Modeling and Verifying Concurrent Reactive Systems Using Separation Logic*
	Huan Sun, David Sanán, Jun Sun and Wenhai Wang
	[54] *A Unified Method to Efficiently Verify Opacity of Discrete-Timed Automata*
	Julian Klein, Kuize Zhang and Sabine Glesner
	[67] *Specification and Verification of Multi-Clock Systems Using a Temporal Logic with Clock Constraints*
	Yuanrui Zhang, Frederic Mallet, Min Zhang and Zhiming Liu
12:30 - 14:00	Lunch Break
14:00 -15:30	**West Lake Hiking Tour**
	End

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		Keynotes	**#fff0c8**
		Invited Papers	**#d5cfe5**
		Regular Papers	**#fbe3c9**
		Doctoral Symposium Papers	**#d5e8d0**
		Journal First Papers	**#cbe0f0**