

# SOFL+MSVL 2022 Program

24-Oct (GMT +9:00)	
	Opening & Keynote (Chairs: Shaoying Liu and Zhenhua Duan)
10:10-10:20	Opening
10:20-11:20	Keynote: Risks Management around Machine Learning Software <i>Shin Nakajima</i>
11:20-11:30	Break
	Section 1: Model Checking & Markov Decision Process (Chair: Zhenhua Duan)
11:30-12:00	A Case Study of APTL Model Checking <i>Haiyang Wang</i>
12:00-12:30	An Approach of Transforming Non-Markovian Reward to Markovian Reward <i>Ruixuan Miao and Xu Lu</i>
12:30-13:00	A JPSL based Model Checking Approach for Java Programs <i>Xinfeng Shu and Yanlin Li</i>
13:00-14:00	Lunch
	Section 2: Model Analysis & Tool Implementation (Chair: Ai Liu)
14:00-14:30	Implementation of Matlab matfun Toolkit Based on MSVL <i>Xueqing Feng, Nan Zhang and Zhenhua Duan</i>
14:30-15:00	Extending Visibly Pushdown Automata over Multi-matching Nested Relations <i>Jin Liu, Yeqiu Xiao, Haiyang Wang and Wensheng Wang</i>
15:00-15:30	Feasibility analysis of concurrent digraph tasks in static priority systems <i>Jin Cui and Xu Lu</i>
15:30-15:40	Break
	Section 3: Formal Specification & Testing (Chair: Yuting Chen)
15:40-16:10	Formalization of natural language into PPTL specification via neural machine translation <i>Chunyi Li, Jiajun Chang, Xiaobing Wang, Liang Zhao and Wenjie Mao</i>
16:10-16:40	Testing Program Segments to Detect Runtime Exceptions in Java <i>Lei Rao, Shaoying Liu and Ai Liu</i>
16:40-17:10	Inferring Exact Domains to Generate Efficient and Valid Test Cases through Testing <i>Chu Chen, Xuan Wang, Pinghong Ren, Zhenhua Duan, Cong Tian, Xu Lu and Bin Yu</i>
17:10-17:20	Break
	Section 4: Algorithms & Verification (Chair: Xinfeng Shu)
17:20-17:50	Testing and Verifying the security of COVID-19 CT Images Deep Learning System with Adversarial Attack <i>Yang Li and Shaoying Liu</i>
17:50-18:20	Verifying and improving neural networks using testing-based formal verification <i>Haiyi Liu, Shaoying Liu, Ai Liu and Dingbang Fang</i>
18:20-18:50	Formal Derivation and Verification of Critical Path Algorithm for Directed Acyclic Graph <i>Zhen You, Xinwu Yi, Jinyun Xue, Hongwen Hu, Jiewen Huang and Zhuo Cheng</i>
	Closing
18:50-19:00	Ai Liu and Shaoying Liu