

Seminar Topics

Trends in Computer-Aided Verification

(Winter 2024/25)

First name: _____

Surname: _____

Matriculation no.: _____

 Study programme: BSc Informatik MSc Informatik MSc SSE Other: _____

Please choose your three preferred topics from the following list (1st/2nd/3rd choice):

No.	Title	1.	2.	3.
A. Verification of Neural Networks				
1	Abstraction-Based Verification with Intervals and Zonotopes			
2	Shared Certificates for Neural Network Verification			
3	Detecting Novel Inputs			
B. Compositional Verification of Probabilistic Systems				
1	Assume-Guarantee Reasoning			
2	Compositional Strategy Synthesis			
3	Circular Assume-Guarantee Reasoning			
4	Compositional Model Checking			
C. Analysis of Partially Observable Stochastic Systems				
1	Efficient Computation of Belief Values			
2	Planning under Constraints			
3	Multi-Environment Models			
D. Static Analysis of Quantum Programs				
1	Detecting Bugs			
2	Entanglement Analysis			
3	Error Analysis			
4	The LintQ Static Analysis Framework			

Nickname to be displayed on web page (in place of real name, if desired):
