

## Planning of the Research Seminar Software Science

<b>Week</b>	<b>Date</b>	<b>Topic</b>	<b>Presented by</b>	<b>Paper overviews</b>
1	27 Jan	Introductory meeting		
2	3 Feb	Course planning		
3	10 Feb	Guest lecture: Supervisory control of cyber-physical systems		
4	17 Feb	Overview and Performance Evaluation of Supervisory Controller Synthesis with Eclipse ESCET v4.0	Ivo Review 1	Bart 1 Michel 1
4	17 Feb	The Ultimate Conditional Syntax	Madelief Review 1	Mikhail 1 Martijn 1
4	17 Feb	Dependency-Induced Waste in Continuous Integration: An Empirical Study of Unused Dependencies in the npm Ecosystem	Bart Review 1	Ivo 1 Madelief 1
4	17 Feb	Syntax Is All You Need: A Universal-Language Approach to Mutant Generation	Dion Review 1	Teun 1
4	17 Feb	Automating Unrealizability Logic: Hoare-Style Proof Synthesis for Infinite Sets of Programs	Arvid Review 1	Joris 1 Jens 1
5	24 Feb	Your Code Secret Belongs to Me: Neural Code Completion Tools Can Memorize Hard-Coded Credentials	Michel Review 1	Josja 1 Sophia 1
5	24 Feb	A separation logic for heap space under garbage collection	Mikhail Review 1	Max 1 + Dion 1 Tom 1
5	24 Feb	Complete First-Order Reasoning for Properties of Functional Programs	Martijn Review 1	Arthur 1 Mara 1
5	24 Feb	Fast Graph Simplification for Path-Sensitive Typestate Analysis through Tempo-Spatial Multi-Point Slicing	Joris Review 1	Arvid 1 Axel 1 + Thijs 1
6	3 Mar	No meeting (Carnaval)		

7	10 Mar	The QUIC Transport Protocol: Design and Internet-Scale Deployment	Josja Review 1	Marloes 1 Michel 2
7	10 Mar	BRF: Fuzzing the eBPF Runtime	Arthur Review 1	Mikhail 2 Martijn 2
7	10 Mar	ClarifyGPT: A Framework for Enhancing LLM-Based Code Generation via Requirements Clarification	Mara Review 1	Ivo 2 Madelief 2
7	10 Mar	Yesterday, My Program Worked. Today, It Does Not. Why?	Anna Review 1	Thijs 2 Marloes 2
7	10 Mar	Exploring and Unleashing the Power of Large Language Models in Automated Code Translation	Teun Review 1	Dion 2 Anna 1
7	10 Mar	Alive2: bounded translation validation for LLVM	Axel Review 1	Joris 2 Jens 2
(E1)	-	(break)		
(E2)	-	(break)		
(E3)	-	(break)		
1	7 Apr	Bit-Stealing Made Legal: Compilation for Custom Memory Representations of Algebraic Data Types	Tom Review 1	Josja 2 Sophia 2
1	7 Apr	Quantum software engineering and quantum software development lifecycle: a survey	Sophia Review 1	Max 2 Tom 2
1	7 Apr	The Ultimate Conditional Syntax	Max Review 1	Arthur 2 Mara 2
1	7 Apr	Dependency-Induced Waste in Continuous Integration: An Empirical Study of Unused Dependencies in the npm Ecosystem	Thijs Review 1	Teun 2
1	7 Apr	Shadows in the Interface: A Comprehensive Study on Dark Patterns	Marloes Review 1	Anna 2 Bart 2
1	7 Apr	Your Code Secret Belongs to Me: Neural Code Completion Tools Can Memorize Hard-Coded Credentials	Jens Review 1	Arvid 2 Axel 2

2	14 Apr	The probabilistic model checker Storm	Ivo Review 2	Bart 3 Michel 3
2	14 Apr	Evaluating and Improving ChatGPT for Unit Test Generation	Madelief Review 2	Mikhail 3 Martijn 3
2	14 Apr	Concurrent Data Structures Made Easy	Bart Review 2	Ivo 3 + Thijs 3 Madelief 3
2	14 Apr	Weighted Context-Free-Language Ordered Binary Decision Diagrams	Dion Review 2	Marloes 3 Teun 3
3	21 Apr	No meeting (Easter)		
4	-	(break)		
5	5 May	No meeting (Bevrijdingsdag)		
6	12 May	On Reducing Undesirable Behavior in Deep-Reinforcement-Learning-Based Software	Michel Review 2	Josja 3 Sophia 3
6	12 May	Rewrite rule inference using equality saturation	Mikhail Review 2	Max 3 Tom 3
6	12 May	DyPyBench: A Benchmark of Executable Python Software	Martijn Review 2	Arthur 3
6	12 May	StarMalloc: Verifying a Modern, Hardened Memory Allocator	Arvid Review 2	Joris 3 Jens 3
7	19 May	ParDiff: Practical Static Differential Analysis of Network Protocol Parsers	Josja Review 2	Marloes 4 Michel 4
7	19 May	Finding and Understanding Defects in Static Analyzers by Constructing Automated Oracles	Arthur Review 2	Mikhail 4 Martijn 4
7	19 May	Kafka: a Distributed Messaging System for Log Processing	Anna Review 2	Dion 3 Thijs 4
7	19 May	How Does Simulation-Based Testing for Self-Driving Cars Match Human Perception?	Marloes Review 2	Anna 3 Bart 4

7	19 May	HiPy: Extracting High-Level Semantics from Python Code for Data Processing	Joris Review 2	Arvid 3 Axel 3
8	26 May	Knowledge Transfer from High-Resource to Low-Resource Programming Languages for Code LLMs	Mara Review 2	Ivo 4 Madelief 4
8	26 May	Naiad: a timely dataflow system	Tom Review 2	Josja 4 Sophia 4
8	26 May	Predicting Configuration Performance in Multiple Environments with Sequential Meta-Learning	Teun Review 2	Dion 4 Anna 4
8	26 May	Minotaur: A SIMD-Oriented Synthesizing Superoptimizer	Axel Review 2	Joris 4 Jens 4
9	2 Jun	A comparison of a graph database and a relational database: a data provenance perspective	Sophia Review 2	Max 4 Tom 4
9	2 Jun	A Verified Foreign Function Interface between Coq and C	Max Review 2	Arthur 4 Mara 3
9	2 Jun	A deep dive into Large Language Models for Automated Bug Localization and Repair	Jens Review 2	Arvid 4 Axel 4
9	2 Jun	Bringing Open Source Communication and Development Together: A Cross-Platform Study on Gitter and GitHub	Thijs Review 2	Teun 4 Mara 4

(21 students)