Welcome

The talks take place at Oeconomicum, room 5007, Helmholtzplatz 3. We have breaks in room 4007 of the same building.

Arriving

The Oeconomicum is in a 25 minutes walking distance from Ilmenau main station. Alternatively, you can take the bus line A in direction of "Technische Universität", get off at "Mensa", and take a five-minute walk to the Oeconomicum.

Dinner

On Thursday, February 29, at 8 p.m. a joint (self-pay) dinner will take place at the "Bel Canto" restaurant in the Hotel Tanne, Lindenstraße 38 (close to the bus line A, "Homburger Platz").

Internet

is accessible via *eduroam* or *guest access* on the campus.

Contact

Website: *www.tu-ilmenau.de/almoth2024*

email: *almoth2024@tu-ilmenau.de*

Program

Thursday, February 29

12:30 - 13:25	Coffee and Buffet
13:25 - 13:30	Welcome

13:30 - 15:00	**Session: Color Refinement & Work**

Benjamin Scheidt, HU Berlin
Color Refinement as an Index for Evaluating Acyclic Conjunctive Queries

Oleg Verbitsky, HU Berlin
On the benefits of walking

Jennifer Todtenhoefer, TU Dortmund
On the work of dynamic constant-time parallel algorithms for regular tree languages and context-free languages

Jonas Schmidt, TU Dortmund
Dynamic constant-time parallel graph algorithms with sub-linear work

15:00 - 15:30	Coffee Break

15:30 - 16:40	**Session: Succinctness & Games**

Christian Schwarz, TU Ilmenau
Modal logic is more succinct iff bi-implication is available in some form

Harry Vinall-Smeeth, TU Ilmenau
From Quantifier Depth to Quantifier Number: Separating Structures with k Variables

Sophie Brinke, RWTH Aachen
Ehrenfeucht–Fraïssé Games in Semiring Semantics

16:40 - 17:10	Coffee Break

17:10 - 18:40	**Session: Graph Structure & Homomorphism Counts**

Nikolas Mählmann, Universität Bremen
Combinatorial Characterizations of Monadically Stable and Monadically NIP Graph Classes

Daniel Neuen, Universität Bremen
Isomorphism for Tournaments of Small Twin Width

Eva Fluck, RWTH Aachen
Going Deep and Going Wide: Counting Logic and Homomorphism Indistinguishability over Graphs of Bounded Treedepth and Treewidth

Tim Seppelt, RWTH Aachen
An Algorithmic Meta Theorem for Homomorphism Indistinguishability

20:00	Dinner

Friday, March 1

9:00 - 10:05	**Session: Testing, Learning, Order-invariance**

Isolde Adler, Universität Bamberg
Logic and property testing

Fabian Vehlken, Ruhr-Universität Bochum
Learning Tree Transformations From Examples

Moritz Lichter, RWTH Aachen
Compressing CFI Graphs and Lower Bounds for the Weisfeiler-Leman Refinements

10:05 - 10:25	Coffee Break

10:25 - 11:30 **Session: Proof Complexity & Bounded Arithmetic**

Azza Gaysin, Universität Passau
Proof complexity of a CSP dichotomy proof

Moritz Müller, Universität Passau
On the parameterized complexity of bounded arithmetical truth

Benedikt Pago, University of Cambridge
Symmetric proofs in the Ideal Proof System

11:30 - 11:50	Coffee Break

11:50 - 12:55 **Session: Trees & Text**

Markus Schmid, HU Berlin
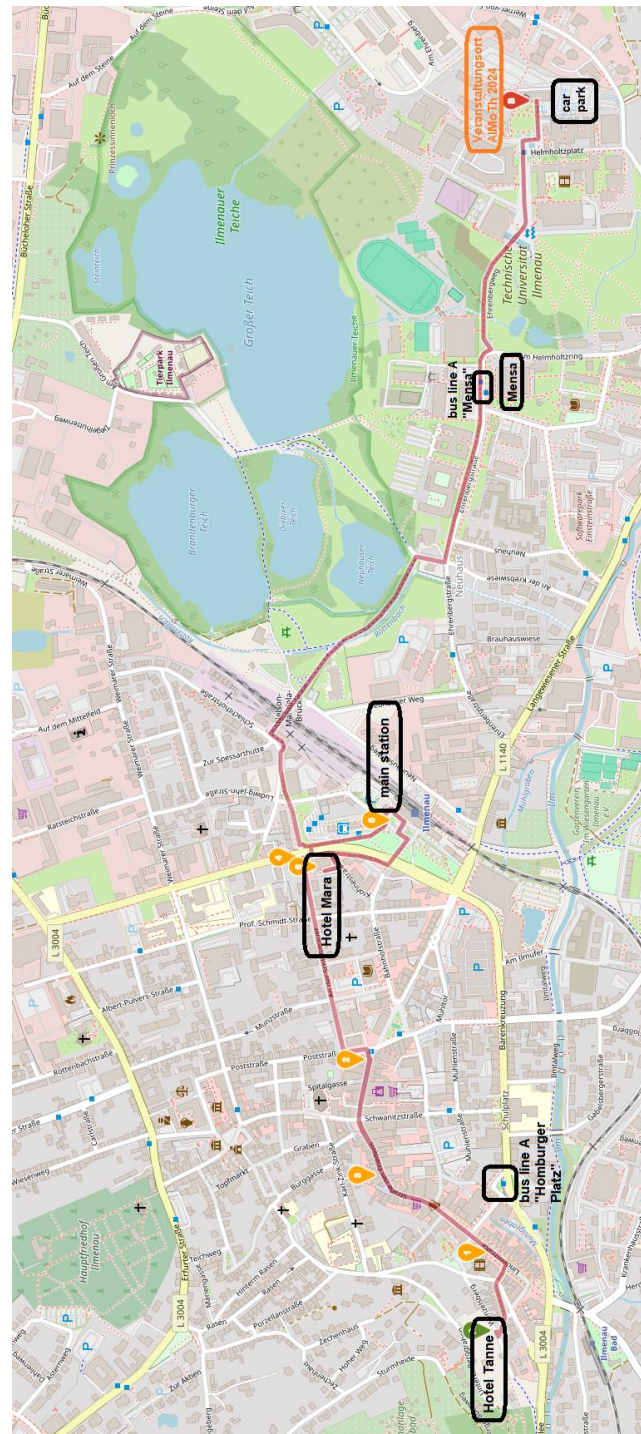*Enumeration for MSO-Queries on Compressed Trees*

Sam Thompson, Loughborough University
Generalized Core Spanner Inexpressibility via Ehrenfeucht-Fraïssé Games for FC

Owen Bell, Loughborough University
Fast Datalog on Text

12:55 - 13:00	Farewell
13:00 - 13:45	Option for joint lunch at Mensa 4 "Ehrenberg" (on campus)
13:45 - 18:00	Hike to the Kickelhahn

AIMoTh 2024

February 29 & March 1, 2024

TECHNISCHE UNIVERSITÄT ILMENAU