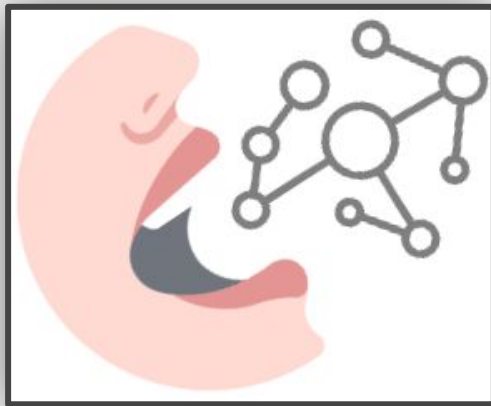


Large Language Models for Knowledge Graph and Ontology Engineering



Pascal Hitzler

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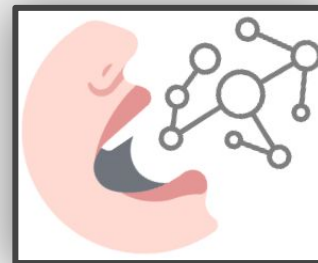
LASIGE
University of Lisbon, PT

Cogan Shimizu

KASTLE Lab
Wright State University, US

Details & Information

- **3** keynotes
- **2** addresses
- **27** registered attendees
- **12** submissions
- **7** presentations



<https://kastle-lab.github.io/llms-and-kg-engineering/>
<https://aaai.org/conference/fall-symposia/fss24/>

For Questions or Concerns

- Pascal Hitzler (hitzler@ksu.edu)
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Alessandro Oltramari

Neuro-Symbolic Cognitive Reasoning: From Theory to Practice

Day 1: November 7

- **09:00** – Welcome
- **09:15** – Keynote: Alessandro Oltramari – *Neuro-Symbolic Cognitive Reasoning: From Theory to Practice*
- **10:30** – Break
- **11:00** – Reham Alharbi, Valentina Tamma, Floriana Grasso, Terry Payne – *Investigating Open Source LLMs to Retrofit Competency Questions in Ontology Engineering*
- **11:20** – Antonio Zaitoun, Tomer Sagi, Mor Peleg – *Generating Ontology-Learning Training-Data through Verbalization*
- **11:40** – Xishi Zhu, Xiaoming Guo, Shengting Cao, Shenglin Li, Jiaqi Gong – *StructuGraphRAG: Structured Document-Informed Knowledge Graphs for Retrieval-Augmented Generation*
- **12:00** – Breakout preparation
- **12:20** – Buffer or early lunch break
- **12:30** – Lunch
- **14:00** – Breakout session
- **15:15** – Reports from the breakouts
- **15:30** – Break
- **16:00** – Address: Cogan Shimizu – *Attempting a Conversational Approach for Modular Ontology*
- (End 17:30)



Mohammed J. Zaki

*Recipes in AI:
Representation,
Recommendation and
Generation*

Day 2

- **09:00** – Welcome
- **09:15** – Keynote: Mohammed J. Zaki – *Recipes in AI: Representation, Recommendation and Generation*
- **10:30** – Break
- **11:00** – Sheng Jie Lui, Cheng Xiang, Shonali Krishnaswamy – *Knowledge Aware Automated Health Claims Processing with Medical Ontologies and Large Language Models*
- **11:20** – Sukanya Mandal, Noel O'Connor – *LLMasMMKG: LLM Assisted Synthetic Multi-Modal Knowledge Graph Creation For Smart City Cognitive Digital Twins*
- **11:40** – Sagar Srinivas Sakhinana, Vijay Sri Vaikunth, Venkataramana Runkana – *Knowledge Graph Modeling-Driven Large Language Model Operating System (LLM OS) for Task Automation in Process Engineering Problem-Solving*
- **12:00** – Yihang Zhao, Bohui Zhang, Xi Hu, Shuyin Ouyang, Jongmo Kim, Nitisha Jain, Jacopo de Berardinis, Albert Meroño-Peñuela, Elena Simperl – *Improving Ontology Requirements Engineering with OntoChat and Participatory Prompting*
- **12:20** – Buffer or early lunch break
- **12:30** – Lunch
- **14:00** – Panel: Oltramari, Zaki, Tamma, Pascal – *LLMs for KGs and OE: What are realistic prospects?*
- **15:30** – Break
- **16:00** – Breakouts continued
- **17:00** – Reports from the breakouts
- (End 17:20)
- **18:00** – Plenary (with other Symposia)



Valentina Tamma

*Injecting LLMs in the
ontology engineering
lifecycle: what we learnt so
far*

Day 3

- **09:00** – Welcome
- **09:15** – Keynote: Valentina Tamma – *Injecting LLMs in the ontology engineering lifecycle: What we learned so far*
- **10:30** – Break
- **11:00** – Jayavanth – *Open Weight AI for Querying Distributed Government Knowledge Graphs*
- **11:15** – Jieying Chen, Hang Dong, Jiaoyan Chen, Ian Horrocks – *Ontology Text Alignment: Aligning Textual Content to Terminological Axioms*
- **11:30** – Hassan S. Al Khatib, Subash Neupane, Shaswata Mitra, Himanshu Tripathi, Sudip Mittal, Shahram Rahimi, Nina Marhamati, Sean Bozorgzad – *Large Language Models for Engineering Patient Journey Knowledge Graphs*
- **11:45** – Hande McGinty – *Using OLIVE to Connect Food Informatics to Health Informatics: A Flavonoids Case Study*
- **12:00** – Address: Pascal Hitzler – *Using LLMs for Complex Ontology Alignment: Modularity is key!*
- **12:15** – Buffer if needed
- **12:25** – Closing remarks
- (End 12:30)