

# IJCKG 2025: Conference Program

Venue: FORTH Main Building, Amphitheater

## Day 1 (Oct 15)

8:45 – 9:15. Arrival and Registration

9:15 – 9:30. **Welcome** from the General Chairs

9:30 – 9:45. **Welcome** from the director of FORTH-ICS, Panagiotis Tsakalides

9:45 – 10:45. **Keynote Speech: Katja Hose, Sharp Edges in a Fuzzy World: Knowledge Graphs and LLMs**

10:45 – 11:15. **Coffee** Break

11:15-12:55. **P1** Session

1. [11:15 - 11:40] ]Tapio Pitkäranta and Eero Hyvönen, Semantic Web – A Forgotten Wave of Artificial Intelligence?
2. [11:40 - 12:05] Efstratios Skaperdas and Nick Bassiliades, Ontology-Aware Relation Prediction over EurostatKG: A Unified Neural Framework
3. [12:05 - 12:30] Divya Baura and Diego Calvanese, User Access Control in Policy-Protected Virtual Knowledge Graphs
4. [12:30 - 12:55] Jaime Osvaldo Salas, Paolo Pareti, Semih Yumusak, Soulmaz Gheisari, Luis-Daniel Ibáñez and George Konstantinidis, Evaluation and Comparison Semantics for ODRL

12:55 - 1:00 . Group Photo and the entrance of the building

1:00 – 2:00. **Lunch** Break

2:00- 3:40. **P2** session

1. [2:00 - 2:25] Zhongtian Sun, Anoushka Harit, Alexandra Cristea, Christl Donnelly and Pietro Liò, GLANCE: Graph Logic Attention Network with Cluster Enhancement for Heterophilous Graph Representation Learning
2. [2:25 - 2:50] Rosario Napoli, Giovanni Lonia, Antonio Celesti, Massimo Villari and Maria Fazio, Bi-View Embedding Fusion: A Hybrid Learning Approach for Knowledge Graph's Nodes Classification Addressing Problems with Limited Data
3. [2:50 - 3:15] Jiafeng Xiong and Rizos Sakellariou, Trajectory Encoding Temporal Graph Networks
4. [3:15 - 3:40] Shu Zhao, Ying Zha, Ziwei Du, Huanjing Zhao, Xingsheng Lu, Ao Liu, Jie Chen and Zhen Duan, MugraTAG: Multi-granularity Representation Learning on Text-Attributed Graphs

3:40-4:00. **Coffee** Break

4:00- 4:30. **Invited talk:** Manolis Koubarakis, Question answering over geospatial knowledge graphs

4:30- 6:00. **Young** Researchers Forum

1. [4:30 - 4:50] Jiaoyan Chen, Embedding Complex Knowledge: From Geometric to Language Models
2. [4:50 - 5:10] Vasilis Efthymiou, Semantic Enrichment of Data Using Knowledge Graphs
3. [5:10 - 5:30] (**remote**) Ningyu Zhang, Knowledgeable Agents
4. [5:30 - 6:00] Panel

## Day 2 (Oct 16)

9:30 – 10:30. **Keynote Speech: Kang Liu, Shuttle between Symbolic Knowledge and Neural Parameters**

10:30-11:00. **Coffee** Break

11:00-1:05. **P3** session

1. [11:00 - 11:25] Julien Corman, Diego Calvanese, Ognjen Savkovic, Antonella Poggi, Maurizio Lenzerini, Lorenzo Marconi, Gianluca Cima and Roberto Maria Delfino, Answering MetaQueries over RDFS Ontologies under the Sparql Metamodeling Semantics Entailment Regime
2. [11:25 - 11:50] Milos Jovanovic, Marija Vecovska, Maxime Jakubowski and Katja Hose, RDFGraphGen: An RDF Graph Generator based on SHACL Shapes
3. [11:50 - 12:15] Ivan Gocev, Georgios Meditskos and Nick Bassiliades, Explaining Ontology Alignments via Abductive Graph Isomorphisms
4. [12:15 - 12:40] Romuald Esdras Wandji and Diego Calvanese, Realizing Bidirectional Virtual Knowledge Graphs Using Ontop

5. [12:40 - 1:05] Sophia Sideri, Iosif Oikonomakis, Petros Tsirmakos, Giorgos Flouris, Vasilis Efthymiou, Dimitrios Rompogiannakis, Elias Kyritsis, Ioanna Leonidaki and Andreas Zezas, HECATE at the Crossroads: Guiding Astrophysics into the Semantic Web

1:05-2:00. **Lunch** Break

2:00- 3:40. **P4** session

1. [2:00 - 2:25] Zhiyu Pan, Yongli Mou, Fengshuo Hao, Yuting Gao, Stefan Decker and Antonello Monti, Semantic Annotation of Energy Data Using Ensemble Decision-Making with Large Language Models
2. [2:25 - 2:50] Georgios Balanos, Evangelos Chasanis, Konstantinos Skianis and Evaggelia Pitoura, KGRAG-Ex: Explainable Retrieval-Augmented Generation with Knowledge Graph-based Perturbations
3. [2:50 - 3:15] Zihao Song, Huang Peng, Weixin Zeng and Xiang Zhao, RANA: Conflict Resolution for Knowledge Graphs with Better Representation learning
4. [3:15 - 3:40] Yannis Tzitzikas and Haridimos Kondylakis, Knowledge Graphs and Quantum Computing: First Blood

3:40-4:00 **Coffee** Break

4:00-5:15. **Education** track

1. [4:00-4:20] Constance Jumbo, Rashed Al Amin, Hasan Abu Rasheed, Veit Wiese, Christian Weber and Roman Obermaisser. A Knowledge Graph-Based Approach for Personalized Course and Curriculum Path Recommendation
2. [4:20-4:35] (short) Amir Rajabi, Jan Schnieder and Daniel Schiffner. Conceptual Design Considerations of a Knowledge Graph-Driven Framework for Scientific Knowledge Exploration
3. [4:35-4:50] (short) T.Y. Emmy Lai, Ann-Kathrin Bernards, Dena Bagheri, Marlena Flüh, Tobias Lang, Héctor Allende-Cid and Diego Collarana. ABEL: Artificial Buddy for Effective Learning
4. [4:50-5:00] (remote) Qurat Ul Ain, Mohamed Amine Chatti, Jean Qussa, Amr Shakhshir, Rawaa Alatrash and Shoeb Joarder. An Optimized Pipeline for Automatic Educational Knowledge Graph Construction
5. [5:00-5:10] (remote) Rawaa Alatrash, Mohamed Amine Chatti, Nasha Wibowo and Qurat Ul Ain. Inferring Prerequisite Knowledge Concepts in Educational Knowledge Graphs: A Multi-criteria Approach

5:15 - 6:00. **Evaluation Track**

1. [5:15 - 5:25] Jeff Pan. Archer: Bilingual Reasoning-aware Text-to-SQL Evaluation
2. [5:25 - 6:00] Marianne Menglin Liu, Sai Ashish Somayajula, Syed Fahad Allam Shah and Dan Roth. OraPlan-SQL: A Planning-Centric Framework for Complex Bilingual NL2SQL Reasoning

4:00- 6:00. [Orfanoudakis Room] Workshop: **Knowledge Graphs in Cultural Heritage** (& CRM SIG)

- [4:00 - 5:00] **Tutorial:** Building Interoperable Knowledge Graphs with X3ML Framework, Yannis Marketakis
- [5:00 - 5:15] Nicolò Pratelli, Emanuele Lenzi and Valentina Bartalesi. Connecting Cultural Heritage Through Knowledge Graphs: A Case Study on Medieval Manuscripts
- [5:15 - 5:30] Alexandros Makris, Ioanna Demeridou, Panagiotis Koutlemanis, Anastasios Roussos, Nikolaos Partarakis and Xenophon Zabulis. A Knowledge Graph-Driven Interactive 3D Simulation for Craft Training
- [5:30 - 5:45] Gerald Hiebel and Brigit Danthine. A Knowledge Graph for Archaeological Research based on CIDOC CRM with latest extensions implemented with RDFstar and Named Graphs
- [5:45 - 6:00] Georgia Angelaki. Knowledge Representation of Intangible Cultural Heritage according to the UNESCO 2003 Convention definition

**20:00 Social Dinner**

## Day 3 (Oct 17)

9:15 – 10:30. **P5** session **(In Use 1/2)**

1. [9:15 - 9:40] Dessislava Petrova-Antonova, Paolo Paretì, Petar Tomov, Semih Yumusak, Christopher Maidens, Shanshan Jiang, George Konstantinidis and Dumitru Roman, Knowledge Graph-Driven Policy Enforcement in Urban Dataspace
2. [9:40 - 10:05] Michalis Mountantonakis, Dimitris Papadopoulos and Yannis Tzitzikas, Basketball Question Answering using Knowledge Graphs and Large Language Models
3. [10:05 - 10:30] Sophia Sideri, Emmanouil Patronakis, Evangelos Nikiforos, Isidoros Chatzichrysos, Apostolos Baniotis, Valantis Zervos, Stavros Tzormpatzakis, Michalis Saridakis, Iosif Oikonomakis, Michalis

Mountantonakis, Pavlos Fafalios and Yannis Tzitzikas, To Automate or not to Automate the Transcription of Ancient Earthquakes: Toward a Global Knowledge Graph about Ancient Earthquakes

10:30-11:00 **Coffee** Break

11:00 – 11:50. **P6 session (In Use 2/2)**

1. [11:00 - 11:25] Sophia Sideri, Vasilis Efthymiou, Dimitris Plexousakis and Haridimos Kondylakis, PG2RDF: Schema-Guided Transformation of Property Graphs to RDF
2. [11:25 - 11:50] Yannis Marketakis, Yannis Tzitzikas, Alessandro Petrocelli, Sara Pittonet Gaiarin, Siân Astley, Christine Absil, Michelle Boonstra, Tim Huntington, Tracy Murai and Nicolas Baily, Construction, Access, and Application of a Knowledge Base for Sustainable Aquafood Communication

11:50- 1:05. **Industrial Forum** (3 talks)

1:05 – 2:00. **Lunch** Break

2:00 -3:15. **Demo Papers and Posters**

1. [2:00 - 2:10] Michalis Mountantonakis and Yannis Tzitzikas. TCRMQ: Question Answering by Multi-Hop SPARQL Queries over Event-Based Knowledge Graphs
2. [2:10 - 2:20] Nicolò Pratelli, Claudio De Martino, Emanuele Lenzi and Valentina Bartalesi. Building Geospatial Knowledge Graphs for Cultural Heritage with the GeoLinks API
3. [2:20 - 2:30] Birte Caesar, Solveig Peter, Celsa Diaz Tejada, Matthias Werner, Oskar Krafft and Michél Mahler. Process Copilot for the German Public Sector
4. [2:30 - 2:40] Paul Danielse, Shashikant Ilager and Zhiming Zhao. Towards Knowledge Retrieval for Agentic Systems in the Cloud: Learning, Analysis and Control
5. [2:40 - 2:50] Giannis Vassiliou, Georgia Eirini Trouli, Nikolaos Papadakis and Haridimos Kondylakis. 3T: Triple Stores Triggers
6. [2:50 - 3:00] Gabriel Dumont, John Puentes and Pedro Merino-Laso. Unsupervised Linking of Unstructured Data Entities to a Knowledge Graph
7. [3:00 - 3:10] Iakovos Giannakos, Giannis Vassiliou, Georgia Eirini Trouli, Haridimos Kondylakis and Nikos Papadakis. ULYSSES: Demonstrating Automated Frequently Asked Questions for Knowledge Graphs.

3:15-3:40. **Coffee** Break and Free Discussion at the Posters

4:00 - 5:00 **Tutorial:** The Shapes Constraint Language (SHACL): an Overview and its Future Directions, Paolo Paretì

3:30 - 5:00. [**Pagiatakis Room**] **Workshop: Quantum Computing and Data/Knowledge Management (QC&DKM)**

- [3:30 - 4:30] **Tutorial:** Introduction to Quantum Computing, George Stamatiou
- [4:30 - 4:45] **Invited Talk (remote):** Dimitris Angelakis, Analog and qubit efficient quantum computing
- [4:45 - 5:00] Paper: Giorgos Theodorakis, Michalis Touloupakis and Yannis Tzitzikas On Encoding Big Knowledge Graphs as Quantum States and on Running Grover's algorithm

5:00- 6:00. **Keynote** Speech (**remote**): **Pascal Hitzler, Knowledge Graphs in the Neurosymbolic AI Age**

6:00- 6:15. **Closing**