

## Preface

The International Workshop on Description Logics is the main annual event of the Description Logic research community. It is the forum at which those interested in description logics, from both academia and industry, meet to discuss ideas, share information, and compare experiences. The workshop explicitly welcomes submissions from researchers that are new to the area and provides quality feedback via peer-reviewing, while at the same time being of an inclusive nature with a very high acceptance rate. There are only informal (electronic) proceedings and inclusion of a paper in these proceedings should not preclude its publication at conferences. Further information can be found on the DL web pages at <http://dl.kr.org/>.

This volume contains the papers presented at the 34th International Workshop on Description Logics (DL 2021) held in Bratislava, Slovakia, from September 19–22, 2021. It will be co-located with a number of events as part of Bratislava Knowledge September (BAKS 2021). Due to the COVID-19 pandemic, the event was held in hybrid mode, with online and in-person participation.

We received 55 submissions out of which 35 papers were accepted for oral presentation and 20 for poster presentation. Every submission received on average three reviews provided by 61 Program Committee members and 13 external reviewers. Overall, the committee decided to accept 30 full papers and 25 extended abstracts.

DL 2021 offered an interesting and diverse program, which in addition to the technical papers, included four invited talks by leading experts:

- Claudia d’Amato (University of Bari, Italy) on *Empowering Knowledge Bases: A Machine Learning Perspective*,
- Ernesto Jimenez-Ruiz (City University of London, UK) on *Ontology Alignment and the Two DLs*,
- Nicole Schweikardt (Humboldt University of Berlin, Germany) on *Locality Properties of Extensions of First-Order Logic and their Use in Algorithms*, and
- Luciano Serafini (FBK Trento, Italy) on *Learning and Reasoning with Logic Tensor Networks: The Framework and an Application*.

The invited talk by Luciano Serafini was joint with the Workshop on Data Meets Applied Ontologies in XAI (DAO-XAI 2021).

This year’s Best Student Contribution Award was presented to Quentin Manière for the paper “Counting Queries over  $\mathcal{ELHI}^{\perp}$  Ontologies. It is a tradition at the DL workshop to give a prize for the best contribution that was primarily produced by a student or students. Seven nominations of papers with students as co-authors were received from more senior co-authors of these papers. The Program Committee (without members who had conflict of interest) voted to give the award to this paper.

We are indebted to the Program Committee and the additional reviewers for their invaluable efforts in providing helpful and informative reviews for all submissions in a timely fashion, in spite of the unique challenges this year. For advice and support we thank members of the DL Steering Committee. The organization and reviewing process was simplified a lot by the EasyChair conference management system and we thank CEUR for publishing these proceedings. The workshop would not be possible without the submissions and participation of all the people that make DL such a great community.

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Finally, special thanks must go to Ján Klůka and Júlia Pukancová for their engagement in the local organization and to the students who helped as volunteers.

September 2021

Martin Homola (General Chair & Local Organizer)  
Vladislav Ryzhikov (Program Committee Co-Chair)  
Renate Schmidt (Program Committee Co-Chair)

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