

### 30th International Workshop on Description Logics

July 18-21, Montpellier, France

## Program

#### **TUESDAY JULY 18**

8:00-8:45 Registration

8:45-9:45 30th anniversary ECCAI-sponsored invited talk (session chair: Meghyn Bienvenu)

Uli Sattler: From reasoning problems to non-standard reasoning problems and one step further

9:45-10:25 **OBDA** (session chair: Meghyn Bienvenu)

André Hernich, Carsten Lutz, Fabio Papacchini and Frank Wolter: Horn-Rewritability vs PTime Query Answering

for Description Logic TBoxes

Arash Karimi, Heng Zhang and Jia-Huai You: Beyond Skolem Chase: A Study of Finite Chase under Standard

**Chase Variant** 

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

11:00-12:40 Modularity (session chair: Frank Wolter)

Yevgeny Kazakov and Denis Ponomaryov: On the Complexity of Semantic Integration of OWL Ontologies Jean Christoph Jung, Carsten Lutz, Mauricio Martel and Thomas Schneider: Query Conservative Extensions in Horn Description Logics with Inverse Roles

Michael Benedikt, Bernardo Cuenca Grau and Egor V. Kostylev: Source Information Disclosure in Ontology-based Data Integration (Extended Abstract)

Despoina Trivela, Giorgos Stoilos and Vasilis Vassalos: A Framework and Positive Results for Query Answering over Inconsistent Description Logic Knowledge Bases

Yuri Malheiros and Fred Freitas: Unification in EL for Competency Question Generation

Henrik Forssell, Daniel P. Lupp, Martin G. Skjæveland and Evgenij Thorstense: Reasonable Macros for Ontology

Construction and Maintenance

Christos Rantsoudis, Guillaume Feuillade and Andreas Herzig: Repairing ABoxes through active integrity constraints

12:40-14:10

14:10-15:50 **Explanation** (session chair: Mantas Šimkus)

Alexey Ignatiev, Joao Marques-Silva, Carlos Mencía and Rafael Peñaloza: Debugging EL+ Ontologies through

Yevgeny Kazakov, Pavel Klinov and Alexander Stupnikov: Towards Reusable Explanation Services in Protege Yevgeny Kazakov and Peter Skočovský: Enumerating Justifications using Resolution

Jieying Chen, Michel Ludwig, Yue Ma and Dirk Walther: Computing Subsumption Justifications of Ontologies Júlia Pukancová and Martin Homola: Tableau-Based ABox Abduction for the ALCHO Description Logic Maximilian Pensel and Anni-Yasmin Turhan: Quantification in Defeasible DLs matters again (Extended Abstract)

Nadia Labai, Martin Homola and Magdalena Ortiz: Constructive Satisfiability Procedure for ALC^P(Z)

(Preliminary Report)

15:50-17:00 Poster session & coffee break

17:00-18:10 **DL Extensions** (session chair: **Rafael Peñaloza**)

Markus Krötzsch, Maximilian Marx, Ana Ozaki and Veronika Thost: Reasoning with Attributed Description Logics

Arina Britz and Ivan Varzinczak: Towards defeasible SROIQ

Stefan Borgwardt, Marco Cerami and Rafael Peñaloza: Łukasiewicz Fuzzy EL is Undecidable David Toman and Grant Weddell: On Partial Features in the DLF Dialects of Description Logic with Inverse Features

19:00-22:00 **Welcome reception** 

> The welcome cocktail will be held on the first evening of the workshop in the "salle Pétrarque" (2 place Pétrarque), which is a 7-minute walk from the venue.

\* To be guided to the reception: meet at the entrance of the Faculty of Medecine at 18:50. \*

invited talk short presentation long presentation poster presentation



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#### **WEDNESDAY JULY 19**

8:45-9:45 Invited talk (session chair: Carsten Lutz)

Andreas Pieris: Query Rewriting under Existential Rules

9:45-10:35 OBDA (session chair: Carsten Lutz)

Charalampos Nikolaou, Egor V. Kostylev, George Konstantinidis, Mark Kaminski, Bernardo Cuenca Grau

and Ian Horrocks: The Bag Semantics of Ontology-Based Data Access

Markus Brenner and Birte Glimm: Incremental Materialization Update via Abstraction Refinement

10:35-11:05 Coffee break

11:05-12:35 OBDA (session chair: Birte Glimm)

Meghyn Bienvenu, Stanislav Kikot, Roman Kontchakov, Vladislav Ryzhikov and Michael Zakharyaschev:

Optimal Nonrecursive Datalog Rewritings of Linear TGDs and Bounded Hypertree-Width Queries

Carsten Lutz and Leif Sabellek: Ontology-Mediated Querying with EL: Trichotomy and Linear Datalog Rewritability

Meghyn Bienvenu, Stanislav Kikot, Roman Kontchakov, Vladislav Ryzhikov and Michael Zakharyaschev:

On the Parametrised Complexity of Tree-Shaped Ontology-Mediated Queries in OWL 2 QL

Olga Gerasimova, Stanislav Kikot, Vladimir Podolskii and Michael Zakharyaschev: On the Data Complexity of Ontology-Mediated Queries with a Covering Axiom

12:35-14:15 Lunch

**14:15-15:50 OBDA and Query Answering** (session chair: **Roman Kontchakov**)

Franz Baader, Stefan Borgwardt and Marcel Lippmann: Query Rewriting for DL-Lite with n-ary Concrete Domains (Abstract)

Peter Hansen and Carsten Lutz: Computing FO-Rewritings in EL in Practice: from Atomic to Conjunctive Queries Víctor Gutiérrez Basulto, Jean Christoph Jung and Yazmín Angélica Ibáñez García: On Query Answering in Description Logics with Number Restrictions on Transitive Roles

Enrique Matos Alfonso and Giorgos Stamou: Rewriting Queries with Negated Atoms

Germán Alejandro Braun, Christian Gimenez, Laura Cecchi and Pablo Fillottrani: Towards a Visualisation

Process for Ontology-Based Conceptual Modelling

Gianluca Cima: Preliminary results on Ontology-based Open Data Publishing

Laura Giordano, Valentina Gliozzi, Gian Luca Pozzato and Riccardo Renzulli: An Efficient Reasoner

for Description Logics of Typicality and Rational Closure

Martin Leinberger, Ralf Lämmel and Steffen Staab: The essence of functional programming on semantic data

Germán Alejandro Braun, Matias Pol'La, Laura Cecchi, Agustina Buccella, Pablo Fillottrani and Alejandra Cechich: A DL Semantics for Reasoning over OVM-based Variability Models

15:50-17:00 Poster session & coffee break

**17:00-17:55 Explanation** (session chair: **Yevgeny Kazakov**)

Marvin Schiller, Florian Schiller and Birte Glimm: Testing the Adequacy of Automated Explanations of EL Subsumptions

Rafael Peñaloza, Carlos Mencía, Alexey Ignatiev and Joao Marques-Silva: Lean Kernels in DLs (Extended Abstract)
Abdallah Arioua, Madalina Croitoru, Abdelraouf Hecham and Gem Stapleton: An empirical evaluation
of argumentation in explaining inconsistency tolerant query answering



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#### **THURSDAY JULY 20**

8:45-9:45 Invited talk (session chair: Marie-Laure Mugnier)

Markus Krötzsch: Ontologies for Knowledge Graphs?

**9:45-10:25 Reasoning** (session chair: Marie-Laure Mugnier)

Sebastian Rudolph and Lukas Schweizer: Not too Big, Not too Small... Complexities of Fixed-Domain Reasoning

in First-Order and Description Logics

Birte Glimm, Yevgeny Kazakov and Trung-Kien Tran: Scalable Reasoning by Abstraction in DL-Lite

10:25-11:00 Coffee break

**11:00-12:40 DL Extensions** (session chair: **David Toman**)

Diego Calvanese, Marlon Dumas, Fabrizio Maria Maggi and Marco Montali: Semantic DMN:

Formalizing Decision Models with Domain Knowledge

Franz Baader, Stefan Borgwardt, Patrick Koopmann, Ana Ozaki and Veronika Thost: Metric Temporal

**Description Logics with Interval-Rigid Names** 

Camille Bourgaux and Anni-Yasmin Turhan: Temporal Query Answering in DL-Lite over Inconsistent Data

(Extended Abstract)

Alessandro Artale, Marco Montali, Simone Tritini and Wil van der Aalst: Object-Centric Behavioral Constraints:

Integrating Data and Declarative Process Modelling

Nikoo Zolfaghar Karahroodi and Volker Haarslev: A Consequence-based Algebraic Calculus for SHOQ

Razieh Mehri and Volker Haarslev: Applying Machine Learning to Enhance Optimization Techniques for OWL Reasoning

12:40-14:10 Lunch

**14:10-15:50 Query Answering** (session chair: **lan Horrocks**)

Víctor Gutiérrez Basulto, Jean Christoph Jung and Yazmín Angélica Ibáñez García:

Number Restrictions on Transitive Roles in Description Logics with Nominals

Jean-François Baget, Meghyn Bienvenu, Marie-Laure Mugnier and Michaël Thomazo:

Answering Conjunctive Regular Path Queries over Guarded Existential Rules

David Carral, Dragoste Irina and Markus Krötzsch: Answering Conjunctive Queries for Expressive

DLs with the Restricted Chase

David Tena Cucala, Bernardo Cuenca Grau and Ian Horrocks: Consequence-based Reasoning

for Description Logics with Disjunction, Inverse Roles, and Nominals

Laura Giordano and Daniele Theseider Dupre': ASP for Minimal Entailment in a Rational Extension

of SROEL (Extended Abstract)

Loris Bozzato, Luciano Serafini and Gaetano Calabrese: CKR:Live Demo: Using Contexts and

**Exceptions for Representing Evolving Knowledge States** 

Labinot Bajraktari, Magdalena Ortiz and Mantas Šimkus: Goal-oriented type-based reasoning for expressive DLs

15:50-17:00 Poster session & coffee break

17:30-19:00 Guided city tour

We will enjoy a guided tour of the beautiful historic center of Montpellier. There will be three tour groups: two groups for the tour "Discovery of Hôtels Particuliers" (visit of private buildings not normally accessible to the public) and one group for "Essential Historic Center" (a more classical tour of the city).

\* We will meet at the tourism office (place de Comédie) at 17:25. Departure from entrance of venue at 17:10 \*

19:00-23:00 Workshop dinner

The conference dinner will take place on the terrace of the Insensé restaurant (39 boulevard Bonne Nouvelle) in the courtyard of the Musée Fabre.

\* The tours will end at the restaurant. Those not attending the tour can meet us at the restaurant at 19:00. \*

invited talk
short presentation
long presentation
poster presentation



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#### **FRIDAY JULY 20**

#### 8:50-10:30 Probabilistic DLs (session chair: Tommie Meyer)

Stefan Borgwardt, Ismail Ilkan Ceylan and Thomas Lukasiewicz: Ontology-Mediated Queries for Probabilistic Databases (Extended Abstract)

Ismail Ilkan Ceylan, Stefan Borgwardt and Thomas Lukasiewicz: Most Probable Explanations for Probabilistic Database Queries (Extended Abstract)

Franz Baader, Patrick Koopmann and Anni-Yasmin Turhan: Using Ontologies to Query Probabilistic Numerical

Data (Extended Abstract)

Yizheng Zhao and Renate A. Schmidt: Role Forgetting for ALCOQH(universal role)-Ontologies Using an

Yizheng Zhao and Renate A. Schmidt: Role Forgetting for ALCOQH(universal role)-Ontologies Using an Ackermann Approach

#### 10:30-11:00 Coffee break

#### 11:00-12:20 DL Extensions and Formal Ontology (session chair: Alessandro Artale)

Franz Baader, Pavlos Marantidis and Alexander Okhotin: Approximate Unification in the Description Logic FL0 Labinot Bajraktari, Magdalena Ortiz and Mantas Simkus: Clopen Knowledge Bases: Combining Description Logics and Answer Set Programming

Roberto Confalonieri, Oliver Kutz, Nicolas Troquard, Pietro Galliani, Rafael Peñaloza, Daniele Porrello and Marco Schorlemmer: Coherence, Similarity, and Concept Generalisation
Adrian Nuradiansyah, Franz Baader and Daniel Borchmann: The Identity Problem in Description Logic Ontologies

#### 12:20-14:00 DL business meeting & sandwiches

SOCIAL PROGRAM: see DL 2017 website for more information and maps















