

# 26th International Workshop on Description Logics

## Workshop Program

### Day 1 (July 23)

<b>9:00-10:25</b>	<b>Actions &amp; Processes</b>	
9:00-10:00	<b>Keynote</b> <i>Giuseppe De Giacomo</i>	<b>Actions, Processes, and Ontologies</b>
10:00-10:25	<i>Diego Calvanese, Evgeny Kharlamov, Marco Montali, Ario Santoso and Dmitriy Zheleznyakov</i>	Verification of Inconsistency-Aware Knowledge and Action Bases
<b>10:25-11:00</b>	<b>Coffee Break</b>	
<b>11:00-12:40</b>	<b>Conjunctive Query Answering I</b>	
11:00-11:25	<i>Egor V. Kostylev and Juan L. Reutter</i>	Complexity of Answering Counting Aggregate Queries over DL-Lite
11:25-11:50	<i>Birte Glimm, Yevgeny Kazakov, Ilianna Kollia and Giorgos Stamou</i>	Using the TBox to Optimise SPARQL Queries
11:50-12:15	<i>Meghyn Bienvenu, Magdalena Ortiz, Mantas Simkus and Guohui Xiao</i>	Tractability Guarantees for DL-Lite Query Answering
12:15-12:40	<i>Stanislav Kikot, Dmitry Tsarkov, Michael Zakharyashev and Evgeny Zolin</i>	Query Answering via Modal Definability with FaCT++: First Blood
<b>12:40-14:00</b>	<b>Lunch Break</b>	
<b>14:00-16:00</b>	<b>DL Reasoning I</b>	
14:00-14:25	<i>Chiara Del Vescovo, Pavel Klinov, Bijan Parsia, Ulrike Sattler, Thomas Schneider and Dmitry Tsarkov</i>	Empirical Study of Logic-Based Modules: Cheap Is Cheerful
14:25-14:50	<i>David Toman and Grant Weddell</i>	CFDnc: A PTIME Description Logic with Functional Constraints and Disjointness
14:50-15:15	<i>Yevgeny Kazakov and Pavel Klinov</i>	Incremental Reasoning in EL+ without Bookkeeping
15:15-15:40	<i>Franz Baader, Oliver Fernandez Gil and Barbara Morawska</i>	Hybrid EL-Unification is NP-complete
15:40-15:43	<i>Domenico Lembo, Valerio Santarelli and Domenico Fabio Savo</i>	A Graph-Based Approach for Classifying OWL 2 QL Ontologies
15:43-15:46	<i>Weihong Song, Bruce Spencer and Weichang Du</i>	Complete Classification of Complex ALCHO Ontologies Using a Hybrid Reasoning Approach
15:46-15:49	<i>Riku Nortje, Arina Britz and Thomas Meyer</i>	Module-Theoretic Properties of Reachability Modules for SRIQ
15:49-15:52	<i>Yu Liu and Peter McBrien</i>	SQOWL2: Transactional Type Inference for OWL 2 DL in an RDBMS
15:52-15:55	<i>Nicolas Matentzoglou, Samantha Bail and Bijan Parsia</i>	A Corpus of OWL DL Ontologies
15:55-15:58	<i>Michael Wolters, German Nemirovski and Andreas Nolle</i>	ClickOn_A: An Editor for DL-Lite_A Based Ontology Design
<b>16:00-16:30</b>	<b>Coffee Break</b>	
<b>16:30-18:05</b>	<b>Conjunctive Query Answering II</b>	
16:30-16:55	<i>Despoina Trivela, Giorgos Stoilos, Alexandros Chortaras and Giorgos Stamou</i>	Optimising Resolution-Based Rewriting Algorithms for DL Ontologies
16:55-17:20	<i>Stanislav Kikot, Roman Kontchakov, Vladimir Podolskii and Michael Zakharyashev</i>	Query Rewriting over Shallow Ontologies
17:20-17:45	<i>Mark Kaminski and Bernardo Cuenca Grau</i>	Sufficient Conditions for First-Order and Datalog Rewritability in ELU
17:45-17:48	<i>Ralf Möller, Christian Neuenstadt, Özgür Özceç and Sebastian Wandelt</i>	Advances in Accessing Big Data with Expressive Ontologies
17:48-17:51	<i>Maxim Haddad and Diego Calvanese</i>	Extending DL-Lite_A with Singleton Nominals
17:51-17:54	<i>Mariano Rodriguez-Muro, Roman Kontchakov and Michael Zakharyashev</i>	Query Rewriting and Optimisation with Database Dependencies in Ontop
17:54-17:57	<i>Giorgio Stefanoni, Boris Motik and Ian Horrocks</i>	Introducing Nominals to the Combined Query Answering Approaches for EL
17:57-18:00	<i>Marco Console, Maurizio Lenzerini, Riccardo Mancini, Riccardo Rosati and Marco Ruzzi</i>	Synthesizing Extensional Constraints in Ontology-based Data Access
18:00-18:03	<i>Andreas Nolle and German Nemirovski</i>	ELITE: An Entailment-based Federated Query Engine for Complete and Transparent Semantic Data Integration
<b>18:00-19:30</b>	<b>Evening Reception</b>	

## Day 2 (July 24)

<b>9:00-10:25</b>	<b>Biomedical Applications</b>	
9:00-10:00	<b>Keynote</b> <i>Michel Dumontier</i>	<b>Drugs, Genetics and Phenotypes: an Admission of Formal Semantics in Biomedical Research</b>
10:00-10:25	<i>Ernesto Jimenez-Ruiz, Christian Meilicke, Bernardo Cuenca Grau and Ian Horrocks</i>	Evaluating Mapping Repair Systems with Large Biomedical Ontologies
<b>10:25-11:00</b>	<b>Coffee Break</b>	
<b>11:00-12:35</b>	<b>DL Reasoning II</b>	
11:00-11:25	<i>Andreas Steigmiller, Birte Glimm and Thorsten Liebig</i>	Extending Absorption to Nominal Schemas
11:25-11:50	<i>Jiewen Wu, Taras Kinash, David Toman and Grant Weddell</i>	Absorption for ABoxes with Local Universal Restrictions
11:50-12:15	<i>Rafael S. Gonçalves, Nicolas Matentzoglou, Bijan Parsia and Uli Sattler</i>	The Empirical Robustness of Description Logic Classification
12:15-12:18	<i>Marvin Schiller and Birte Glimm</i>	Towards Explicative Inference for OWL
12:18-12:21	<i>Kejia Wu and Volker Haarslev</i>	Exploring Parallelization of Conjunctive Branches in Tableau-based Description Logic Reasoning
12:21-12:24	<i>Loris Bozzato and Luciano Serafini</i>	Materialization Calculus for Contexts in the Semantic Web
12:24-12:27	<i>Chan Le Duc, Myriam Lamolle and Olivier Curé</i>	SHOIQ with Transitive Closure of Roles is Decidable
12:27-12:30	<i>Daniel Gorin, Lutz Schröder and Thorsten Wißmann</i>	Reasoning with Bounded Self-Reference using Logical Interpreters
12:30-12:33	<i>Mohammad Khodadadi, Dmitry Tishkovsky and Renate A. Schmidt</i>	A Refined Tableau Calculus with Controlled Blocking for the Description Logic SHOI
12:33-12:36	<i>Cong Wang, David Carral and Pascal Hitzler</i>	SROIQ Syntax Approximation by Using Nominal Schemas
<b>12:35-14:00</b>	<b>Lunch Break</b>	
<b>14:00-15:35</b>	<b>Temporal Aspects &amp; Change</b>	
14:00-14:25	<i>Stefan Borgwardt, Marcel Lippmann and Veronika Thost</i>	Temporal Query Answering in DL-Lite
14:25-14:50	<i>Alessandro Artale, Roman Kontchakov, Frank Wolter and Michael Zakharyashev</i>	Temporalising OWL 2 QL
14:50-15:15	<i>Diego Calvanese, Magdalena Ortiz and Mantas Simkus</i>	Evolving Graph Databases under Description Logic Constraints
15:15-15:18	<i>Diego Calvanese, Giuseppe De Giacomo, Marco Montali and Fabio Patrizi</i>	Dynamic Systems Based on Description Logics: Formalization, Verification, and Synthesis
15:18-15:21	<i>Eleni Tsalapati, Giorgos Stoilos, Giorgos Stamou and George Koletsos</i>	Query Rewriting Under Ontology Evolution
15:21-15:24	<i>Serge Autexier and Dieter Hutter</i>	Constructive DL Update and Reasoning for Modeling and Executing the Orchestration of Heterogenous Processes
15:24-15:27	<i>Ali Rezaei Divroodi and Linh Anh Nguyen</i>	Bisimulation-Based Comparisons for Interpretations in Description Logics
15:27-15:30	<i>Francesco Pagliarecci, Luca Spalazzi and Gilberto Taccari</i>	Reasoning with Temporal ABoxes: Combining DL-Lite core with CTL
15:30-15:33	<i>Özgür Lütfü Özcepe and Ralf Möller</i>	Spatial Semantics for Concepts
<b>15:35-16:05</b>	<b>Coffee Break</b>	
<b>16:05-17:40</b>	<b>Learning</b>	
16:05-16:30	<i>Boris Konev, Carsten Lutz and Frank Wolter</i>	Exact Learning of TBoxes in DL-Lite and EL
16:30-16:55	<i>Felix Distel and Yue Ma</i>	A Hybrid Approach for Learning Concept Definitions from Text
16:55-17:20	<i>Daniel Borchmann</i>	Axiomatizing Confident EL_gfp-General Concept Inclusions in the Presence of Trusted Individuals
<b>17:20-17:40</b>	<b>ORE Reasoner Competition: Announcement of Results</b>	
<b>18:30-19:30</b>	<b>Guided City Tour</b>	
<b>19:30-22:00</b>	<b>Social Dinner</b>	

## Day 3 (July 25)

<b>9:00-10:25</b>	<b>FOL Fragments</b>	
9:00-10:00	<b>Keynote</b> <i>Ian Pratt-Hartmann</i>	<b>Transitivity and Equivalence in Decidable Fragments of First-Order Logic</b>
10:00-10:25	<i>Yazmin Angelica Ibanez-Garcia, Carsten Lutz and Thomas Schneider</i>	Finite Model Reasoning in Horn-SHIQ
<b>10:25-11:00</b>	<b>Coffee Break</b>	
<b>11:00-12:35</b>	<b>Uncertainty</b>	
11:00-11:25	<i>Jean Christoph Jung and Carsten Lutz</i>	Ontology-Based Access to Probabilistic Data with OWL QL
11:25-11:50	<i>Rafael Peñaloza and Tingting Zou</i>	Rough EL Completion
11:50-12:15	<i>Arina Britz, Giovanni Casini, Thomas Meyer and Ivan Varzinczak</i>	Preferential Role Restrictions
12:15-12:18	<i>Francesca Alessandra Lisi and Umberto Straccia</i>	A System for Learning GCI Axioms in Fuzzy Description Logics
12:18-12:21	<i>Fernando Bobillo and Umberto Straccia</i>	General Concept Inclusion Absorptions for Fuzzy Description logics: A First Step
12:21-12:24	<i>Stefan Borgwardt and Rafael Peñaloza</i>	About Subsumption in Fuzzy EL
12:24-12:27	<i>Andreas Ecke, Rafael Peñaloza and Anni-Yasmin Turhan</i>	Role-depth bounded Least Common Subsumer in Prob-EL with Nominals
12:27-12:30	<i>Denis Ponomaryov and Dmitry Vlasov</i>	Concept definability and Interpolation in Enriched Models of EL-TBoxes
12:30-12:33	<i>Mohamed Chaabani, Rachid Echahed and Martin Strecker</i>	Logical Foundations for Reasoning about Transformations of Knowledge Bases
<b>12:35-14:00</b>	<b>Lunch Break</b>	
<b>14:00-15:35</b>	<b>Rules &amp; Nonmonotonic DLs</b>	
14:00-14:25	<i>André Hernich, Clemens Kupke, Thomas Lukasiewicz and Georg Gottlob</i>	Well-Founded Semantics for Extended Datalog and Ontological Reasoning
14:25-14:50	<i>Despoina Magka, Markus Krötzsch and Ian Horrocks</i>	Nonmonotonic Existential Rules for Non-Tree-Shaped Ontological Modelling
14:50-15:15	<i>Laura Giordano, Valentina Gliozzi, Nicola Olivetti and Gian Luca Pozzato</i>	Minimal Model Semantics and Rational Closure in Description Logics
15:15-15:18	<i>Giovanni Casini, Thomas Meyer, Ivan Varzinczak and Kody Moodley</i>	Nonmonotonic Reasoning in Description Logics: Rational Closure for the ABox
15:18-15:21	<i>Giovanni Casini, Thomas Meyer, Kody Moodley and Ivan Varzinczak</i>	Towards Practical Defeasible Reasoning for Description Logics
15:21-15:24	<i>Pierre Bourhis, Michael Morak and Andreas Pieris</i>	The Impact of Disjunction on Query Answering Under Guarded-based Existential Rules
15:24-15:27	<i>Thomas Lukasiewicz, Maria Vanina Martinez and Gerardo Simari</i>	Preference-Based Query Answering in Datalog+/- Ontologies
15:27-15:30	<i>Tommaso Di Noia, Thomas Lukasiewicz and Gerardo Simari</i>	Reasoning with DL-based CP-nets
15:30-15:33	<i>Thomas Lukasiewicz, Maria Vanina Martinez and Gerardo Simari</i>	Complexity of Inconsistency-Tolerant Query Answering in Datalog+/-
<b>15:35-16:05</b>	<b>Coffee break</b>	
<b>16:05-18:30</b>	<b>Poster Session</b>	

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## Day 4 (July 26)

### 9:00-10:40 Interpolation & Approximation

9:00-9:25	<i>Michel Ludwig and Boris Konev</i>	Towards Practical Uniform Interpolation and Forgetting for ALC TBoxes
9:25-9:50	<i>Anni-Yasmin Turhan and Benjamin Zarriß</i>	Computing the lcs w.r.t. General EL+-TBoxes
9:50-10:15	<i>Nadeschda Nikitina and Sven Schewe</i>	More is Sometimes Less: Succinctness in EL
10:15-10:40	<i>Marco Console, Valerio Santarelli and Domenico Fabio Savo</i>	Efficient approximation in DL-Lite of OWL 2 ontologies

### 10:40-11:00 Coffee Break

### 11:00-12:40 Non-Standard Reasoning

11:00-11:25	<i>Marcelo Arenas, Elena Botoeva, Diego Calvanese and Vladislav Ryzhikov</i>	Computing Solutions in OWL 2 QL Knowledge Exchange
11:25-11:50	<i>Martin Homola, Jan Kluka, Vojtěch Svátek and Miroslav Vacura</i>	Towards Typed Higher-Order Description Logics
11:50-12:15	<i>Roman Kontchakov, Vladislav Ryzhikov and Michael Zakharyashev</i>	Conjunctive Query Inseparability in OWL 2 QL is ExpTime-hard
12:15-12:40	<i>Meghyn Bienvenu and Riccardo Rosati</i>	New inconsistency-tolerant semantics for robust ontology-based data access

### 12:40-13:00 Lunch Break (with sandwiches)

### 13:00-14:00 Business Meeting