

# SOQE 2017

## Workshop on Second-Order Quantifier Elimination and Related Topics

TU Dresden, 6–8 December 2017  
Program

Revision: 26 Nov 2017

### Wednesday, 6 December

- 9:00 – 9:10 Welcome
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- 9:10 – 10:10 INVITED TALK: Swinging between Expressiveness and Complexity in Second-Order Formalisms: A Case Study  
*Andrzej Szalas*
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- 10:10 – 11:10 INVITED TALK: Automated Forgetting and Uniform Interpolation – Three Tools  
*Renate Schmidt*
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- 11:10 – 12:40 Lunch Break
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- 12:40 – 13:40 TUTORIAL: Resolution Based Uniform Interpolation and Forgetting for Expressive Description Logics  
*Patrick Koopmann*
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- 13:40 – 14:10 Break
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- 14:10 – 15:40 INVITED TALK: Ackermann-Based Forgetting for Expressive Description Logics  
*Yizheng Zhao*
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- A Preliminary Comparison of the Forgetting Solutions Computed using SCAN, LETHE and FAME  
*Ruba Allassaf and Renate Schmidt*
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- 15:40 – 16:10 Break
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- 16:10 – 17:40 Forgetting-Based Abduction in  $\mathcal{ALC}$ -Ontologies  
*Warren Del-Pinto and Renate Schmidt*
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- Towards Elimination of Second-Order Quantifiers in the Separated Fragment  
*Marco Voigt*
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- Approximating Resultants of Existential Second-Order Quantifier Elimination upon Universal Relational First-Order Formulas  
*Christoph Wernhard*
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- 17:40 – 18:10 Break
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- 18:10 – 19:10 INVITED TALK: Interpolation for Query Reformulation  
*Michael Benedikt*

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### Thursday, 7 December

9:00 – 9:30	INVITED TALK: Elimination Techniques In Modern Propositional Logic Reasoning <i>Norbert Manthey</i>
9:30 – 10:30	INVITED TALK: Focusing on a Vocabulary: Ontology Inseparability, Uniform Interpolation and Modularity <i>Boris Konev</i>
10:30 – 11:00	Break
11:00 – 13:00	INVITED TALK: Conservative Extensions in Description Logics and Beyond <i>Carsten Lutz</i>
	Computing $\mathcal{ALCH}$ -Subsumption Modules Using Uniform Interpolation <i>Patrick Koopmann and Jieying Chen</i>
	Early Steps of Second-Order Quantifier Elimination beyond the Monadic Case: The Correspondence between Heinrich Behmann and Wilhelm Ackermann 1928-1934 <i>Christoph Wernhard</i>
13:00 – 14:00	Lunch Break
14:00 – 15:30	INVITED TALK: Algorithmic Correspondence and Canonicity for Non-Classical Logics <i>Willem Conradie</i>
	Algorithmic Correspondence and Canonicity for Possibility Semantics <i>Zhiguang Zhao</i>
15:30 – 16:00	Break
16:00 – 17:00	TUTORIAL: Cut Elimination and Second-Order Quantifier Elimination <i>Alessandra Palmigiano</i>
17:00 – 17:30	Second Order Quantifier Elimination: Towards Verification Applications <i>Silvio Ghilardi and Elena Pagani</i>
	<b>Excursion</b>
17:45	Leaving the workshop venue
18:15 – 20:15	Guided walk through Dresden's Old Town. Starting 18:15 in the back of <i>New Synagogue</i> , at the corner <i>Akademiestrasse/Hasenberg</i> , close to tramway 3 stop <i>Synagoge</i>
20:30	Dinner at <i>Brennessel</i> , Schützengasse 18, 01067 Dresden

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### Friday, 8 December

	<b>Opportunity to attend invited talks of the <i>QuantLA</i> project:</b>
9:00 – 10:00	Horn Rewritability vs PTime Query Evaluation for Description Logic TBoxes <i>Frank Wolter, University of Liverpool</i>
	Break
10:30 – 11:30	Interpolation, Amalgamation and Combination <i>Silvio Ghilardi, Università degli Studi di Milano (joint work with A. Gianola)</i>
11:30 – 13:00	Lunch Break
	<b>Opportunity to attend the following Habilitation talk:</b>
13:00 – 14:00	Unification, Matching and Disunification in the Description Logic $\mathcal{EL}$ <i>Barbara Morwaska</i>
14:00 – 14:30	Break
14:30 – 15:00	The Boolean Solution Problem from the Perspective of Predicate Logic <i>Christoph Wernhard</i>
15:00 – 16:00	INVITED TALK: Forgetting for Logic Programs/Existential Rules <i>Kewen Wang</i>
16:00 – 16:10	Closing