

ANDREAS PIERIS

School of Informatics, University of Edinburgh
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UNIVERSITY EDUCATION

- **D.Phil. in Computer Science, 2011**
Department of Computer Science, University of Oxford
Thesis: Ontological Query Answering: New Languages, Algorithms and Complexity
Supervisor: Professor Georg Gottlob
- **M.Sc. in Mathematics and Foundations of Computer Science (with Distinction), 2007**
Mathematical Institute, University of Oxford
Thesis: Data Exchange and Schema Mappings
Supervisor: Professor Georg Gottlob
- **B.Sc. in Computer Science (with Distinction, GPA: 9.06/10), 2006**
Department of Computer Science, University of Cyprus
Thesis: The Fully Mixed Nash Equilibrium Conjecture
Supervisor: Professor Marios Mavronicolas

EMPLOYMENT HISTORY

- **Lecturer (equivalent to Assistant Professor) in Databases, 09/2016 – present**
School of Informatics, University of Edinburgh
- **Postdoctoral Researcher, 11/2014 – 09/2016**
Institute of Logic and Computation, Vienna University of Technology
- **Postdoctoral Researcher, 09/2011 – 10/2014**
Department of Computer Science, University of Oxford

RESEARCH

Major research interests

- Data management: knowledge-enriched data, uncertain data
- Knowledge representation and reasoning: ontology languages, complexity of reasoning
- Computational logic and its applications to computer science

Research grants

- **Efficient Querying of Inconsistent Data, 09/2018 – 08/2022**
Principal Investigator
Funding agency: Engineering and Physical Sciences Research Council (EPSRC)
Total award: £758,049
- **Value Added Data Systems: Principles and Architecture, 04/2015 – 03/2020**
Co-Investigator
Funding agency: Engineering and Physical Sciences Research Council (EPSRC)
Total award: £1,546,471

Research supervision experience

- Marco Calautti, postdoctoral supervision, University of Edinburgh, 09/2016 – present
- Markus Schneider, Ph.D. supervisor, University of Edinburgh, 09/2018 – present
- Gerald Berger, Ph.D. co-supervisor, Vienna University of Technology, awarded in 2019
- Michael Morak, Ph.D. co-supervisor, University of Oxford, awarded in 2014

— TEACHING

Teaching experience

- Advanced Topics in Foundations of Databases (since 2017), University of Edinburgh
- Semi-structured Data (2015, 2016), Vienna University of Technology
- Tutorial on Ontological Conjunctive Query Answering via Existential Rules, 27th European Summer School in Logic, Language and Information (ESLLI), 2015
- Several invited tutorials on advanced topics of Data Management – details are given below

Supervision of taught students

Since I joined the School of Informatics at the University of Edinburgh, I have supervised three B.Sc. and eight M.Sc. students on a variety of topics from the areas of knowledge-enriched data, uncertain data, and ontological reasoning.

— INVITED TALKS AND TUTORIALS

Keynote talks

- Query Rewriting under Existential Rules, 30th International Workshop on Description Logics, Montpellier, France, 2017
- From Classical to Consistent Query Answering under Existential Rules, Workshop on Ontologies and Logic Programming for Query Answering (workshop of IJCAI), Buenos Aires, Argentina, 2015
- Default Negation for Datalog+/-, 3rd Workshop on Grounding, Transforming, and Modularizing Theories with Variables (workshop of LPNMR), Lexington, USA, 2015

Invited tutorials

- Reasoning About Data, EDBT Summer School on Adding Value to Data, Genova Nervi, Italy, 2017
- Ontology-Based Query Answering via Rule-Based Languages, 2nd Summer School on Efficient Extraction of Semantic Web Data, Santiago, Chile, 2016
- Recent Advances in Datalog+/-, 11th Reasoning Web Summer School (RW 2015), Berlin, Germany
- Datalog and its Extensions for Knowledge Representation and Reasoning, 2nd AMW School on Data Management (AMWS 2014), Cartagena, Colombia
- Datalog and its Extensions for Semantic Web Databases, 8th Reasoning Web Summer School (RW 2012), Vienna, Austria

Invited talks at other institutions/seminars (partial list)

- Finite Model Reasoning with Ontologies, Seminar on Emerging Challenges in Data Management and AI Research, 2019 (invited by Pablo Barceló, Leopoldo Bertossi and Aidan Hogan)
- Counting Database Repairs under Primary Keys Revisited, Vienna University of Technology, 2019 (invited by Reinhard Pichler)
- An Operational Approach to Consistent Query Answering, University of California Santa Cruz, 2018 (invited by Phokion Kolaitis)
- Datalog+/-: A Family of Languages for Knowledge Representation and Reasoning, IBM Almaden Research Center, 2018 (invited by Phokion Kolaitis)
- An Operational Approach to Consistent Query Answering, University of Liverpool, 2018 (invited by André Hernich)
- On the Succinctness of Query Rewriting in Datalog+/-, Georg Gottlob's Special Event at EDBT/ICDT, Vienna University of Technology, 2018 (invited by Michael Benedikt)
- Datalog+/-: A Family of Ontology Languages, University of Lille, 2017 (invited by Pierre Bourhis)
- Polynomial Rewritings for Linear Existential Rules, Catholic University of Chile, 2016 (invited by Marcelo Arenas)
- Polynomial Rewritings for Linear Existential Rules, University of Opole, 2015 (invited by Lidia Tendera)
- Polynomial Combined Rewritings for Existential Rules, Dagstuhl Seminar on Querying and Reasoning under Expressive Constraints, 2014 (invited by Michael Benedikt, Carsten Lutz and Balder ten Cate)

PROFESSIONAL ACTIVITIES

PC member for the following conferences:

- Symposium on Principles of Database Systems (PODS): 2017, 2018, 2020
- International Conference on Database Theory (ICDT): 2017, 2020
- International Joint Conference on Artificial Intelligence (IJCAI): 2015, 2016, 2017, 2018, 2019
- AAAI Conference on Artificial Intelligence (AAAI): 2013, 2015, 2016, 2017, 2018, 2019, 2020
- International Conference on Principles of Knowledge Representation and Reasoning (KR): 2016, 2018

- International Web Rule Symposium (RuleML): 2015, 2016, 2017, 2018, 2019
- International Conference on Web Reasoning and Rule Systems (RR): 2014, 2016, 2017, 2018, 2019
- European Conference on Logics in Artificial Intelligence (JELIA): 2019
- British International Conference on Databases (BICOD): 2017
- International Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM): 2013

PC member for the following workshops:

- International Workshop on the Resurgence of Datalog in Academia and Industry (Datalog 2.0): 2019 (**co-chair**)
- International Workshop on Description Logics (DL): 2017, 2018, 2019
- Alberto Mendelzon International Workshop on Foundations of Data Management (AMW): 2015
- International Workshop on Experimental Evaluation of Algorithms for Solving Problems with Combinatorial Explosion (RCRA): 2014

Reviewer for the following journals:

- Journal of the ACM
- ACM Transactions on Database Systems
- Artificial Intelligence
- Journal of Computer and System Sciences
- Theoretical Computer Science
- Journal of Web Semantics
- Theory and Practice of Logic Programming
- Journal on Data Semantics
- Transactions on Knowledge and Data Engineering
- The Computer Journal

External reviewer for the following conferences and workshops (partial list):

- Symposium on Principles of Database Systems (PODS): 2015, 2016
- International Conference on Database Theory (ICDT): 2019
- International Conference on Principles of Knowledge Representation and Reasoning (KR): 2014
- ACM/IEEE Symposium on Logic in Computer Science (LICS): 2015, 2019
- International Colloquium on Automata, Languages and Programming (ICALP): 2014
- European Semantic Web Conference (ESWC): 2017
- European Conference on Logics in Artificial Intelligence (JELIA): 2016
- International Workshop on Description Logics (DL): 2016
- IEEE International Conference on Tools with Artificial Intelligence (ICTAI): 2014
- International Conference on Logic Programming and Non-monotonic Reasoning (LPNMR): 2013
- International Conference on Web Reasoning and Rule Systems (RR): 2013
- Reasoning Web Summer School (RW): 2013
- British National Conference on Databases (BNCOD): 2013

Reviewer for the following funding agencies:

- Engineering and Physical Sciences Research Council: 2019
- Irish Research Council: 2018, 2019

Other invitations

- Member of the ICDT 2020 test-of-time award committee (invited by Wim Martens)
- External Ph.D. examiner, Birkbeck University of London, 2019 (invited by Alexandra Poulouvasilis)
- External Ph.D. examiner, Vienna University of Technology, 2019 (invited by Reinhard Pichler)
- External Ph.D. examiner, University of Liverpool, 2018 (invited by Frank Wolter)
- External Ph.D. examiner, University of Montpellier, 2016 (invited by Marie-Laure Mugnier)