



Title: *An Operational Approach to Consistent Query Answering*

Speaker: Dr. Andreas Pieris, University of Edinburgh

Abstract: Consistent query answering (CQA) aims at finding meaningful answers to queries when databases are inconsistent, i.e., do not conform to their specifications. Such answers must be certainly true in all repairs, which are consistent databases whose difference from the inconsistent one is minimal according to some measure. This task is often computationally intractable, and much of CQA research concentrated on finding islands of tractability. However, there are many relevant queries for which no efficient solutions exist. This is reflected by the limited practical applicability of the CQA approach. We are convinced that the ultimate goal of a practically applicable CQA approach should be efficient approximation algorithms that quickly deliver sufficiently good consistent answers with explicit error guarantees. Can we achieve this goal? I will try to give a positive answer to this question. This is joint work with Marco Calautti and Leonid Libkin.

Short Biography: Andreas Pieris has been a Lecturer (equivalent to Assistant Professor) in the School of Informatics at the University of Edinburgh since September 2016. Prior to this, he was a postdoctoral researcher at the Institute of Information Systems (now called Institute of Logic and Computation) of the Vienna University of Technology from November 2014 until September 2016, and a postdoctoral researcher at the Department of Computer Science of the University of Oxford from October 2011 until October 2014. His research interests are database theory with emphasis on query languages, knowledge representation and reasoning, computational logic and its applications to computer science. He has published more than 70 papers, most of them in leading international conferences and journals. He has served on the PCs of international conferences and workshops, including the top-tier database and AI conferences (PODS, ICDT, IJCAI, AAAI, and KR). He has also given invited talks and tutorials at international workshops and summer schools.

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04/07/2018

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4.00 pm

Room
MT10-30B