Résumé of Dr. Guohui Xiao

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Short Bio

Guohui Xiao is an assistant professor at the KRDB Research Centre for Knowledge and Data, Faculty of Computer Science, Free University of Bozen-Bolzano. He received his Bachelor and Master degrees from Peking University, respectively in 2007 and 2010, and his PhD degree in computer science from Vienna University of Technology, Austria, in 2014. His main research interests include knowledge representation, description logics, semantic Web, database theory and virtual knowledge graphs. In these areas, he authored more than 90 publications, including top-tier international journals and conferences, such as JAIR, SWJ, JWS, IJCAI, AAAI, KR, ICDT, EDBT, ISWC, CIKM, and ECAI, with more than 1800 citations and an h-index of 21. He received the Semantic Web Journal 2016 Outstanding Paper Award for the work of Ontop, the Best In-Use Paper in the 16th International Semantic Web Conference (ISWC 2017), and the Best Paper in the 17th Int. Conf. of the Italian Association for Artificial Intelligence (AIxIA 2018). He is leading the development of the Ontop Virtual Knowledge Graph platform, a popular open-source software for data integration. He is a Co-Founder and Chief Scientist of the Ontopic startup.
Web page: `http://www.ghxiao.org`

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1 Personal Data

Name	Guohui Xiao
Year of Birth	1985
Place of Birth	Heilongjiang, China
Nationality	P. R. China
Gender	Male
Languages	Chinese (native), English (professional, IELTS 8.0, obtained on 13 Jan, 2018), Italian (A2)

2 Present Positions

- Assistant Professor at the KRDB Research Centre for Knowledge and Data, Free University of Bozen-Bolzano, Italy.

- Co-founder and Chief Scientist at the Ontopic S.r.l. company, Bolzano, Italy

3 Education

Doctor of Technical Sciences (Dr.techn.)   **Jan 2014**

Vienna University of Technology, Vienna, Austria

Promotion with distinction , 23 Jan 2014

Knowledge Based System (KBS) group, Institute of Information Systems

Adviser: Prof. Thomas Eiter

Thesis: Inline Evaluation of Hybrid Knowledge Bases

External reviewers: Prof. Diego Calvanese, Prof. Sebastian Rudolph

Master of Science   **July 2010**

Peking University, Beijing, China

Department of Information Science, School of Mathematical Sciences

Adviser: Prof. Zuoquan Lin

Thesis: Inconsistency Measurement under Multi-Valued Semantics

Bachelor of Science   **July 2007**

Peking University, Beijing, China

Department of Information Science, School of Mathematical Sciences

4 Professional Experience

March 2019 – now: *Co-founder and Chief scientist* at the Ontopic s.r.l company, Bolzano, Italy. Responsibility: the industry 4.0 activity, technical support, pre-sales, consulting, funding acquisition, interaction with Ontop team at university.

Dec 2014 – now: *Assistant Professor (RTD-a)* at Free University of Bozen-Bolzano, Bolzano, Italy. Responsibility: Leading the Ontop team for the research activity of ontology-based data access/virtual knowledge graph; Funding acquisition; Teaching; Student supervision

July 2013 – Nov 2014: *Research Assistant (Post-doctoral researcher)* at Free University of Bozen-Bolzano, Bolzano, Italy. Responsibility: research on ontology-based data access/virtual knowledge graph/work on the EU FP7 Project Optique

Dec 2009 – Dec 2012: *Research Assistant (Pre-doctoral researcher)* at Vienna University of Technology, Vienna, Austria. Responsibility: work on EU FP7 Project *OntoRule* and Austrian FWF Project *Reasoning in Hybrid KBs* (FWF-P20840)

5 Research Grants and Contracts

Table 1 reports a summary of the research projects I have acquired in which I have been involved as either a principle investigator (PI) or a co-PI. In total, I have acquired more than 1 million EURO of research funding.

Project	Funding body	Duration from - to	months	Role	Funding (in €) Total	unibz
CoRec	Vienna Business Agency	02/2020 - 01/2022	24	PI	200 000	53 000
INODE	H2020	11/2019 - 10/2022	36	co-PI	5 732 000	765 500
HOPE	Miur PRIN	09/2019 - 08/2022	36	co-PI	808 030	155 500
OBDA-Bosch	Robert Bosch Gmbh	07/2019 - 11/2019	5	PI		40 000
GeoVKG	unibz	08/2019 - 11/2020	16	PI		44 400
KGID	unibz	10/2019 - 11/2020	14	PI		10 000
QUADRO	unibz	07/2018 - 06/2020	24	PI		10 000
OBATS	unibz	07/2017 - 06/2019	24	PI		10 000
OBDAM	unibz	07/2016 - 11/2017	17	PI		20 000
Total funding acquired at unibz						94 400
Total externally acquired funding (as PI or co-PI)						1 014 000
Total acquired funding						1 105 800

Table 1: Research projects and funding acquired

A more detailed description of the projects is reported in the following.

02/2020 - 01/2022: PI of the project *Concept recognition in monitoring data* (CoREC), funded by Wirtschfsaagentur Wien (Vienna Business Agency), Austria. The aim of the project is to help industrial companies to become more energy efficient, by using machine learning to analyze data from production processes to create a "digital twin" of the customer's facilities for optimization. The project is

coordinated by Campfire, an innovative startup in Vienna, and in collaboration with Vienna University of Technology. The project is funded under the Science to Products Call 2019, with 53 000€ for the Free Univ. of Bozen-Bolzano.

11/2019 –10/2022: Co-PI of the European Union H2020 project *Intelligent Open Data Exploration* (IN-ODE), whose aim is to develop a suite of agile, fit-for-purpose, and sustainable services for exploration of open data sets that allow users to interact with data in a dialectic and natural way. The project is coordinate by Zürich University of Applied Sciences (Switzerland), and the additional partners are Athena Research (Greece), Max Planck Institute (Germany), Fraunhofer (Germany), SIRIS Academic (Spain), French National Centre for Scientific Research (France), SIB Swiss Institute of Bioinformatics (Switzerland), and Infili Technologies (Greece). The project is funded under the H2020 INFRAEOSC-02-2019 call, with 765 500€ for the Free Univ. of Bozen-Bolzano.

09/2019 - 08/2022: Co-PI of the PRIN Italy project *High quality Open data Publishing and Enrichment* (HOPE), whose aim is to overcome the main technical problems that current open data solutions suffer from, by developing a methodology and associated tools for a new way of producing, publishing, maintaining, accessing and exploiting privacy-preserving open data. The project is coordinated by Sapienza Univ. of Rome (Italy), and the additional partners are Politecnico di Milano (Italy), Univ. of Milano (Italy), and Univ. of Cagliari (Italy). The project is funded by the Italian Ministry for University and Research under the basic research program PRIN, year 2017, with 155 332€ for the Free Univ. of Bozen-Bolzano.

07/2019-11/2019: PI of the industrial project OBDA-Bosch. This project Specifically, it studies how to model, integrate, and analyze time-based manufacturing data Robert Bosch Gmbh using the OBDA approach. The project is funded by Robert Bosch Gmbh, with a budget of 40 000€ for the Free Univ. of Bozen-Bolzano.

08/2019-11/2020: PI of the unibz CRC project[1] *Integration and Analysis of Geodata using Virtual Knowledge Graphs (GeoVKG).* whose aim is to develop a comprehensive framework for integrating and analyzing geodata, by leveraging Virtual Knowledge Graphs (VKG) approach. The project has a budget of 44 400€.

10/2019 - 11/2020: PI of the unibz RTD project[2] *Virtual Knowledge Graphs for Data Integration (KGID)*; budget: 10 000€.

07/2018 – 06/2019: PI of the unibz RTD project *High Quality Data Integration with Ontologies (QUADRO)*; budget: 10 000€.

07/2017 – 06/2019: PI of the unibz RTD project *Ontology-based analysis of temporal and streaming data (OBAST)*; budget: 10 000€.

07/2016 – 11/2017: PI of the unibz RTD project *Ontology-based Data Access for NoSQL database (OBDAM)*; budget: 20 000€.

6 Tutorials and Courses at Scientific Events

25 Nov, 2019. *Virtual Knowledge Graphs.* Diego Calvanese and Guohui Xiao. Half day tutorial at the 9th Joint International Semantic Technology Conference (JIST 2019). Hangzhou, China.

20 Nov, 2018. *Novel Developments in Ontology-Based Data Access and Integration (NOBDI).* Diego Calvanese, Benjamin Cogrel and Guohui Xiao. Full day tutorial at the 17th International Conference of the Italian Association for Artificial Intelligence (AIxIA 2018). Trento, Italy.

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[1]CRC project calls are managed by the Research Committee of unibz. The proposals are evaluated by international experts with an acceptance rate of ca. 30%.

[2]RTD project calls are managed by the Research Committee of unibz. The proposals are evaluated by the faculty.

26 Oct, 2018. *Semantic Technologies for Data Access and Integration.* Diego Calvanese and Guohui Xiao. Full day tutorial at the 27th ACM International Conference on Information and Knowledge Management (CIKM 2018). Torino, Italy.

14 July, 2018. *Ontology-based Data Access: Theory and Practice*, Half day tutorial at IJCAI-ECAI 2018, Stockholm, Sweden.

26 Oct, 2017. *Knowledge Graph Virtualization: Ontology-based data access, theory and application*, Half day tutorial at the China Conference on Knowledge Graph and Semantic Computing (CCKS 2017), Chengdu, China.

19 Nov, 2016. *Mapping Management and Expressive Ontologies in Ontology-Based Data Access.* Full day tutorial at the 20th Int. Conf. on Knowledge Engineering and Knowledge Management (EKAW 2016), Bologna, Italy.

12 Feb, 2016. *Ontop: Answering SPARQL Queries over Relational Databases.* Tutorial at Stanford Center for Biomedical Informatics Research Stanford University.

11 Oct, 2015. *Ontology-based Data Access: From Theory to Practice.* Tutorial at The 14th International Semantic Web Conference (ISWC 2015). Bethlehem, Pennsylvania, US.

10 Aug, 2014. *Ontology-based data access – Theory and Practice.* Tutorial at Summer School of the 8th Chinese Semantic Web Symposium & Web Science Conference (CSWS2014). Wuhan, China

7 Scientific Activities

7.1 Conference Organization

- Proceedings Co-Chair of *the 9th Joint International Semantic Technology Conference (JIST 2019).* Hangzhou, China.

- Publicity Co-Chair of *the Bolzano Rules and Artificial INtelligence Summit (BRAIN 2019)* 16-24 September 2019, Bozen-Bolzano, Italy. Brain 2019 brings together, amongst others, the 3rd International Joint Conference on Rules and Reasoning (RuleML+RR 2019), the Reasoning Web Summer School (RW 2019), the 5th Global Conference on Artificial Intelligence (GCAI 2019) and Decision-CAMP 2019.

- Publicity Co-Chair of *the 8th Joint International Semantic Technology Conference (JIST 2018)*, Nov 26-28, Awaji City, Hyogo, Japan.

- PC Co-Chair of the Track of *Web Technologies & Data Analytics at the 39th IEEE Computer Society Signature Conference on Computers, Software and Applications (COMPSAC/WEDA)*, Taichung, Taiwan, July 1-5, 2015.

- Workshop Co-Chair of *5th Joint International Semantic Technology (JIST2015)*, November 11-13, 2015. Yichang, China

7.2 PC Member of Conferences and Workshops

Senior PC member:

European Conference on Artificial Intelligence (ECAI) 2020.

PC member:

International Joint Conference on Artificial Intelligence (IJCAI) 2016, 2018, 2019, 2020; AAAI Conference on Artificial Intelligence (AAAI) 2017, 2018; International Semantic Web Conference (ISWC) 2019; European Semantic Web Conference (ESWC) 2018; International Conference on Web Reasoning and Rule Systems (RR) 2016; Top-k Shortest Paths in large typed RDF Datasets Challenge @ ESWC 2016; COMPSAC Symposium on Web, Big Data & Analytics (WEDA) 2016; International Workshop on Description Logics (DL) 2015, 2016, 2017, 2018, 2019; Joint International Semantic Technology Conference (JIST) 2015, 2017, 2018, 2019; Open Answer Set Programming Competition (ASPCOMP) 2013.

7.3 Reviewing Activity

Reviewer activity for journals:

Journal of Artificial Intelligence; Journal of Artificial Intelligence Research; International Journal of Approximate Reasoning; Journal of Web Semantics; Semantic Web Journal; Journal of Automated Reasoning; Journal of Knowledge and Information Systems; Information Sciences; Pattern Recognition and Artificial Intelligence.

Reviewer activity for conferences (excluding workshops, and conferences for which I have been a member of the Program Committee):

AAAI Conference on Artificial Intelligence (AAAI) 2011; International Joint Conference on Artificial Intelligence (IJCAI) 2011, 2013, 2015; International Semantic Web Conference (ISWC) 2011, 2012, 2013, 2014, 2015, 2017; International Joint Conference on Automated Reasoning (IJCAR) 2012 ; International Conference on Principles of Knowledge Representation and Reasoning (KR) 2012; Multi-Disciplinary International Workshop on Artificial Intelligence (MIWAI) 2012; Reasoning Web (RW) 2012; British National Conference on Databases (BNCOD) 2013; International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR) 2013; International Conference on Scalable Uncertainty Management (SUM) 2013.

8 Honors and Awards

2018: Best paper at the 17th Int. Conf. of the Italian Association for Artificial Intelligence (AIxIA 2018)
https://aixia2018.fbk.eu/index.php/best-papers/
Paper title: *A Generalized Framework for Ontology-Based Data Access.*
Authors: Elena Botoeva, Diego Calvanese, Benjamin Cogrel, Julien Corman, and Guohui Xiao.

2017: Best In-Use Paper at the 16th International Semantic Web Conference (ISWC 2017)
https://iswc2017.semanticweb.org/program/awards/
Paper title: *Semantic Rule-Based Equipment Diagnostic*
Authors: Gulnar Mehdi, Evgeny Kharlamov, Ognjen Savkovic, Guohui Xiao, and Elem Guzel Kalayci, Sebastian Brandt, Ian Horrocks, Mikhail Roshchin and Thomas Runkler.

2016: Semantic Web Journal 2016 Outstanding Paper Award
http://www.semantic-web-journal.net/blog/semantic-web-journal-awards-2016
Paper title: *Ontop: Answering SPARQL Queries over Relational Databases.*
Authors: Diego Calvanese, Benjamin Cogrel, Sarah Komla-Ebri, Roman Kontchakov, Davide Lanti, Martin Rezk, Mariano Rodriguez-Muro, and Guohui Xiao.

2014: PhD Promotion with Distinction

2013: IJCAI Student Travel Award

2008: Role Models for Outstanding Students of Peking University

2008: Tencent Technology Scholarship

2007: Outstanding Graduated Student of Beijing City

2006: Outstanding Student of Peking University

2004 – 2007: Cyrus Tang Scholarship

2003: First place (out of 7892 students) in the Nongkenzongju area (sub-province level) of Heilongjiang province at the *National College Entrance Exam*

9 Teaching and Student Supervision

9.1 PhD Student Supervision

2016–2019: PhD co-supervisor (with Prof. Diego Calvanese) of Elem Güzel Kalayci on the topic *Ontology-Based Access to Temporal Data*; graduated in March 2019; currently Postdoctoral Researcher at the Free University of Bozen-Bolzano.

9.2 Master Student Supervision

2016-2017: Petko Rutešić, *Managing Literals and Blank Nodes in OBDA*.

9.3 Master Thesis Evaluation

09/2016: Andrea Condoluci, *CERES in Propositional Proof Schemata.*

10/2016: Emmanouil Thanos, *A Constrained Multi-Start Approach to the Drivers Daily Activities Problem with Depot Discontinuity.*

9.4 Lecturer of Courses

2019/20: Lecturer of *Real-time Big Data Processing* (60 hours, master level) at Faculty of Computer Science, Free University of Bozen-Bolzano

2018/19: Lecturer of *Advanced Internet Technologies* (72 hours, master level) at Faculty of Computer Science, Free University of Bozen-Bolzano

2015/16, 2016/17,2017/18: Lecturer of *Semantic Web Technologies* (27 hours, bachelor level) at the school of Software Engineering, Sun Yat-sen University, Guangzhou, China

2009/10: Lecturer of *Java programming language* (one semester, bachelor level) at the Secondary school of Peking University, Beijing, China

9.5 Lab Instructor

2019/20: Lab instructor of *Programming for Data Analytics* (20 hours, master level) at Faculty of Computer Science, Free University of Bozen-Bolzano

2017/18: Lab instructor of *Advanced Internet Technologies* (24 hours, master level) at Faculty of Computer Science, Free University of Bozen-Bolzano

2017/18, 2016/17: Lab instructor of *Knowledge Representation and Ontologies* (24 hours, master level) at Faculty of Computer Science, Free University of Bozen-Bolzano

2016/17: Lab instructor of *Semantic Technologies* (24 hours, master level) at Faculty of Computer Science, Free University of Bozen-Bolzano

2016/17: Lab instructor of *Data Structure and Algorithms* (24 hours, bachelor level) at Faculty of Computer Science, Free University of Bozen-Bolzano

2015/16: Lab instructor of *Semantic Technologies* (24 hours, master level) at Faculty of Computer Science, Free University of Bozen-Bolzano

2015/16: Lab instructor of *Ontology and Database Systems* (36 hours, master level) at Faculty of Computer Science, Free University of Bozen-Bolzano

10 List of Publications

10.1 Journal Articles

[J1] Konstantina Bereta, Guohui Xiao, and Manolis Koubarakis. "Ontop-spatial: Ontop of Geospatial Databases". In: *Journal of Web Semantics* 58 (2019). URL: http://www.ghxiao.org/publications/2019-swj-ontop-spatial.pdf.

[J2] Elena Botoeva, Diego Calvanese, Benjamin Cogrel, Julien Corman, and Guohui Xiao. "Ontology-based data access – Beyond relational sources". In: *Intelligenza Artificiale* 13.1 (2019), pp. 21–36. URL: https://www.ghxiao.org/publications/2019-ia-nosql.pdf.

[J3] Linfang Ding, Guohui Xiao, Diego Calvanese, and Liqiu Meng. "Consistency Assessment for Open Geodata Integration: An Ontology-based Approach". In: *GeoInformatica* (2019), pp. 1–26. DOI: 10.1007/s10707-019-00384-9.

[J4] Elem Güzel Kalaycı, Sebastian Brandt, Diego Calvanese, Vladislav Ryzhikov, Guohui Xiao, and Michael Zakharyaschev. "Ontology-Based Access To Temporal Data With Ontop: A Framework Proposal". In: *International Journal of Applied Mathematics and Computer Science* 29.1 (2019). URL: http://www.ghxiao.org/publications/2019-amcs-ontop-temporal.pdf.

[J5] Davide Lanti, Guohui Xiao, and Diego Calvanese. "VIG: Data Scaling for OBDA Benchmarks". In: *Semantic Web* 10.2 (2019), pp. 413–433. DOI: 10.3233/SW-180336. URL: http://www.semantic-web-journal.net/content/vig-data-scaling-obda-benchmarks-1.

[J6] Guohui Xiao, Linfang Ding, Benjamin Cogrel, and Diego Calvanese. "Virtual Knowledge Graphs: An Overview of Systems and Use Cases". In: *Data Intelligence* 1 (2019), pp. 201–223. DOI: 10.1162/dint_a_00011. URL: http://www.ghxiao.org/publications/2019-dint-vkg-survey.pdf.

[J7] Sebastian Brandt, Elem Güzel Kalaycı, Vladislav Ryzhikov, Guohui Xiao, and Michael Zakharyaschev. "Querying Log Data with Metric Temporal Logic". In: *Journal of Artificial Intelligence Research* 62 (2018), pp. 829–877. URL: http://www.ghxiao.org/publications/2018-jair-mtl.pdf.

[J8] Evgeny Kharlamov, Gulnar Mehdi, Ognjen Savkovic, Guohui Xiao, Elem Güzel Kalayci, and Mikhail Roshchin. "Semantically-Enhanced Rule-Based Diagnostics for Industrial Internet of Things: the SDRL Language and Case Study for Siemens Trains and Turbines". In: *Journal of Web Semantics* (2018). DOI: 10.1016/j.websem.2018.10.004.

[J9] Diego Calvanese, Benjamin Cogrel, Sarah Komla-Ebri, Roman Kontchakov, Davide Lanti, Martin Rezk, Mariano Rodriguez-Muro, and Guohui Xiao. "Ontop: Answering SPARQL Queries over Relational Databases". In: *Semantic Web Journal* 8.3 (2017), pp. 471–487. URL: http://www.semantic-web-journal.net/content/ontop-answering-sparql-queries-over-relational-databases-1.

[J10] Evgeny Kharlamov, Dag Hovland, Martin G. Skjæveland, Dimitris Bilidas, Ernesto Jiménez-Ruiz, Guohui Xiao, Ahmet Soylu, Davide Lanti, Martin Rezk, Dmitriy Zheleznyakov, Martin Giese, Hallstein Lie, Yannis Ioannidis, Yannis Kotidis, Manolis Koubarakis, and Arild Waaler. "Ontology Based Data Access in Statoil". In: *Journal of Web Semantics* 44 (2017), pp. 3–36. URL: `http://www.ghxiao.org/publications/2017-jws-statoil.pdf`.

[J11] Martin Giese, Ahmet Soylu, Guillermo Vega-Gorgojo, Arild Waaler, Peter Haase, Ernesto Jiménez-Ruiz, Davide Lanti, Martin Rezk, Guohui Xiao, Özgür L. Özçep, and Riccardo Rosati. "Optique – Zooming In on Big Data Access". In: *IEEE Computer* 48.3 (2015), pp. 60–67. URL: `http://www.ghxiao.org/publications/2015-computer-optique.pdf`.

[J12] Worarat Krathu, Christian Pichler, Guohui Xiao, Julia Neidhardt, Marco Zapletal, Hannes Werthner, and Christian Huemer. "Inter-organizational Success Factors: A Cause and Effect Model". In: *Information Systems and e-Business Management* 13.3 (Aug. 2015), pp. 553–593. URL: `http://www.ghxiao.org/publications/2015-iseb.pdf`.

[J13] Xiaowang Zhang, Guohui Xiao, Zuoquan Lin, and Jan Van den Bussche. "Inconsistency-tolerant reasoning with OWL DL". In: *International Journal of Approximate Reasoning* 55.2 (2014), pp. 557–584. DOI: `10.1016/j.ijar.2013.09.005`. URL: `http://www.ghxiao.org/publications/2014-ijar-qc-owl.pdf`.

[J14] Yue Ma, Guilin Qi, Guohui Xiao, Pascal Hitzler, and Zuoquan Lin. "Computational Complexity and Anytime Algorithm for Inconsistency Measurement". In: *International Journal of Software and Informatics* 4.1 (2010), pp. 3–21. URL: `http://www.ghxiao.org/publications/mqxhl2010-ijsi.pdf`.

10.2   Edited Proceedings

[P1] Xin Wang, Francesca A. Lisi, Guohui Xiao, and Elena Botoeva, eds. *Semantic Technology - 9th Joint International Conference, JIST 2019, Hangzhou, China, November 25-27, 2019, Revised Selected Papers*. Vol. 1157. Communications in Computer and Information Science. Springer, 2020.

[P2] Xin Wang, Francesca Alessandra Lisi, Guohui Xiao, and Elena Botoeva, eds. *Semantic Technology - 9th Joint International Conference, JIST 2019, Hangzhou, China, November 25-27, 2019, Proceedings*. Vol. 12032. Lecture Notes in Computer Science. Springer, 2020.

10.3   Conference Papers

[C1] Hai Wan, Guohui Xiao, Chenglin Wang, Xianqiao Liu, Junhong Chen, and Zhe Wang. "Query Answering with Guarded Existential Rules under Stable Model Semantics". In: *AAAI*. 2020. URL: `http://www.ghxiao.org/publications/2020-aaai-gntgd.pdf`.

[C2] Labinot Bajraktari, Magdalena Ortiz, and Guohui Xiao. "Optimizing Horn-SHIQ Reasoning for OBDA". In: *International Semantic Web Conference (1)*. Vol. 11778. LNCS. Springer, 2019, pp. 75–92. URL: `http://www.ghxiao.org/publications/2019-iswc-hshiq.pdf`.

[C3] Diego Calvanese, Davide Lanti, Ana Ozaki, Rafael Penaloza, and Guohui Xiao. "Enriching Ontology-based Data Access with Provenance". In: *Proc. of the 28th International Joint Conference on Artificial Intelligence (IJCAI)*. 2019. URL: `http://www.ghxiao.org/publications/2019-ijcai-provenance.pdf`.

[C4] Julien Corman and Guohui Xiao. "Certain Answers to a SPARQL Query over a Knowledge Base". In: *The 9th Joint International Semantic Technology Conference (JIST)*. 2019.

[C5] Elena Botoeva, Diego Calvanese, Benjamin Cogrel, Julien Corman, and Guohui Xiao. "A Generalized Framework for Ontology-Based Data Access". In: *AI*IA*. Vol. 11298. Lecture Notes in Computer Science. Springer, 2018, pp. 166–180.

[C6]   Elena Botoeva, Diego Calvanese, Benjamin Cogrel, and Guohui Xiao. "Expressivity and Complexity of MongoDB Queries". In: *The 21st International Conference on Database Theory (ICDT 2018)*. 2018. URL: http://www.ghxiao.org/publications/2018-icdt-mongodb.pdf.

[C7]   Elem Güzel Kalayci, Guohui Xiao, Vladislav Ryzhikov, Tahir Emre Kalayci, and Diego Calvanese. "Ontop-temporal: A Tool for Ontology-based Query Answering over Temporal Data". In: *CIKM*. ACM, 2018, pp. 1927–1930.

[C8]   Evgeny Kharlamov, Gulnar Mehdi, Ognjen Savkovic, Guohui Xiao, Steffen Lamparter, Ian Horrocks, and Arild Waaler. "Towards Simplification of Analytical Workflows With Semantics at Siemens (Extended Abstract)". In: *BigData*. IEEE, 2018, pp. 1951–1954.

[C9]   Evgeny Kharlamov, Martin G. Skjæveland, Dag Hovland, Theofilos Mailis, Ernesto Jiménez-Ruiz, Guohui Xiao, Ahmet Soylu, Ian Horrocks, and Arild Waaler. "Finding Data Should be Easier than Finding Oil". In: *BigData*. IEEE, 2018, pp. 1747–1756.

[C10] Guozheng Rao, Bo Zhao, Xiaowang Zhang, Zhiyong Feng, and Guohui Xiao. "PRSPR: An Adaptive Framework for Massive RDF Stream Reasoning". In: *APWeb/WAIM (1)*. Vol. 10987. Lecture Notes in Computer Science. Springer, 2018, pp. 440–448.

[C11] Xiangnan Ren, Olivier Curé, Hubert Naacke, and Guohui Xiao. "BigSR: real-time expressive RDF stream reasoning on modern Big Data platforms". In: *IEEE BigData 2018, Seattle, WA, USA*. 2018.

[C12] Ognjen Savkovic, Evgeny Kharlamov, Martin Ringsquandl, Guohui Xiao, Gulnar Mehdi, Elem Güzel Kalayci, Werner Nutt, and Ian Horrocks. "Semantic Diagnostics of Smart Factories". In: *JIST*. Vol. 11341. Lecture Notes in Computer Science. Springer, 2018, pp. 277–294.

[C13] Guohui Xiao, Diego Calvanese, Roman Kontchakov, Domenico Lembo, Antonella Poggi, Riccardo Rosati, and Michael Zakharyaschev. "Ontology-Based Data Access: A Survey". In: *IJCAI-18*. July 2018, pp. 5511–5519. URL: http://www.ghxiao.org/publications/2018-ijcai-obda-survey.pdf.

[C14] Guohui Xiao, Dag Hovland, Dimitris Bilidas, Martin Rezk, Martin Giese, and Diego Calvanese. "Efficient Ontology-Based Data Integration with Canonical IRIs". In: *ESWC*. Vol. 10843. Lecture Notes in Computer Science. Springer, 2018, pp. 697–713. URL: http://www.ghxiao.org/publications/2018-eswc-obdi.pdf.

[C15] Guohui Xiao, Roman Kontchakov, Benjamin Cogrel, Diego Calvanese, and Elena Botoeva. "Efficient Handling of SPARQL Optional for OBDA". In: *ISWC*. 2018, pp. 354–373. URL: http://www.ghxiao.org/publications/2018-iswc-optional.pdf.

[C16] Konstantina Bereta, Guohui Xiao, and Manolis Koubarakis. "Answering GeoSPARQL queries over relational data". In: *FOSS4G-EU - Free and Open Source Software for Geospatial (academic track)*. 2017. URL: http://www.ghxiao.org/publications/2017-foss4g-e-ontop-spatial.pdf.

[C17] Sebastian Brandt, Elem Güzel Kalayci, Roman Kontchakov, Vladislav Ryzhikov, Guohui Xiao, and Michael Zakharyaschev. "Ontology-Based Data Access with a Horn Fragment of Metric Temporal Logic". In: *AAAI*. AAAI Press, 2017, pp. 1070–1076. URL: http://www.ghxiao.org/publications/2017-aaai-datalogmtl.pdf.

[C18] Guoqian Jiang, Eric Prud'Hommeaux, Guohui Xiao, and Harold R. Solbrig. "Developing A Semantic Web-based Framework for Executing the Clinical Quality Language Using FHIR". In: *SWAT4HCLS*. 2017.

[C19] Guoqian Jiang, Guohui Xiao, Richard C. Kiefer, Eric Prod'hommeaux, and Harold R. Solbrig. "Building an FHIR Ontology based Data Access Framework with the OHDSI Data Repositories". In: *AMIA, American Medical Informatics Association Annual Symposium*. 2017. URL: http://www.ghxiao.org/publications/2017-aiam-obda-fhir-ohdsi.pdf.

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