

Pierre Bourhis

Charge de recherche au CNRS

Positions

- Oct. 2013– **Charge de Recherche CNRS**, UMR 9189 CRISTAL, Lille.
- Sept. 2013 **Post-doctorant**, INRIA Saclay, ENS Cachan, Team Webdam.
- 2012–2013 **Research Scholar**, University College, Oxford.
- 2011–Aug. **Post-doctorant**, University of Oxford, Oxford, working for Michael Benedikt.
2013 Invited Researcher and then Researcher Assistant
- 2008–2011 **Allocataire moniteur-normalien (Fellowship)**, University South Paris and INRIA Saclay - Ile de France, Saclay, Team Gemo and Dahu.
- 2008–2011 **Moniteur (Teacher Assistant)**, Polytech South Paris and University South Paris, University South Paris.
- 2004–2007 **Student of Ecole Normale Supérieure de Cachan (Fellowship)**, Departement of Computer Science and Telecommunication, Ecole Normale Supérieure de Cachan.

Eductation

- 2007–2011 **PhD in Computer Sciences**, University of South Paris, *On the dynamics of active document for distributed data management.*
under the supervision of Serge Abiteboul
- 2005–2007 **Master of Research in Computer Science**, ENS Cachan and University Rennes 1, Rennes.
- 2004–2005 **Licence in Computer Science**, ENS Cachan and University Rennes 1, Rennes.
- 2004–2007 **Magistere d'Informatique et Telecommunication**, ENS Cachan, Rennes.
- 2001–2004 **Preparatory Class in Maths and Physics**, Lycee Louis le Grand, Paris.

Internships

- Feb.–May **Internship**, University of California, San Diego.
2011 supervised by Pr. Victor Vianu
- Feb.–July **Master Thesis**, INRIA Saclay - Ile de France, Team Gemo, *Incremental view maintenance for active documents.*
2007 supervised by Serge Abiteboul
- Summer **Summer Research Internship (3 months)**, University of Duisburg-Essen and University of Stuttgart, German, *Extension of the unfolding tool Mole for diagnostic including the implementation of pruning techniques..*
2006 supervised by Prof. Barbara König, Prof. Javier Esparza and Dr. Stefan Schwoon
- Summer **Summer Research Internship (8 weeks)**, IRISA -INRIA Rennes, France, *Temporal Diagnostic in distributed systems by unfolding of Timed Petri Nets.*
2005 supervised by Dr. Thomas Chatain and Prof. Claude Jard.

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Teaching Experience

- 2017-2019 **Chargé d'enseignement**, *Data Science*, École Polytechnique.
- 2016-2018 **Introduction to Database**, *Master 2*, Centrale Lille.
- 2016-2017 **Database Systems**, *Master 1*, University of Lille 1, in collaboration with Dr. Iovka Boneva.
- 2016-2017 **Extraction d'Information**, *Master 2 Mocad*, University of Lille 1, in collaboration with Dr. Joachim Niehren.
- 2015-2016 **Database Systems**, *Master 1*, University of Lille 1, in collaboration with Dr. Iovka Boneva.
- 2015-2016 **Extraction d'Information**, *Master 2 Mocad*, University of Lille 1, in collaboration with Dr. Joachim Niehren.
- 2014-2015 **Extraction d'Information**, *Master 2 Mocad*, University of Lille 1, in collaboration with Pr. Angela Bonifati.
- 2012 **Tutor in Database Systems**, *Licence*, University of Oxford, under the supervision of Pr. Michael Benedikt.
- 2007-2011 **Teacher Assistant**, in *Licence and Master*, Polytech South Paris and University of South Paris, under the supervision of Dr. Sarah Cohen-Boulakia, Dr. Frederic Voisin .
- 2005-2006 **Introduction to Mathematica**, *Classes Préparatoires PSI*, Lycee Joliot Curie, Rennes, in collaboration with Dr. Kevin Huguenin.

Projects

- 2016 **CNRS Security Project at CRIStAL**, *member of the project*.
- 2016-2020 **ANR Project Delta** , *local responsable*.
- 2016-2020 **ANR Project Headwork**, *local responsable*.
- 2016-2017 **AMSUD Project Fog**, *local responsable*.
- 2014-2019 **ANR Project Aggreg**, *member of the project*.
- 2013-2015 **Project Inria North European Labs 2013 : Integrating linked data with Database group of Oxford**, *co-responsible*.
- 2009-2011;2013 **ERC Webdam Project**, *member of the project*.
- 2011-2013 **EPSRC Project WebPlan**, *member of the project*.
- 2007-2009 **ANR Project DocFlow**, *member of the project*.

Student

- 2015- **PhD Supervision of Dimitri Gallois**, *co-advised with Sophie Tison*.

Prize

- 2017 **The paper Characterizing Definability in Decidable Fixpoint Logics has obtained the prize of Best Paper Award of Tracj B of ICALP 2017**].
- 2015 **The paper Reasonable Highly Expressive Query Languages has obtained a prize at IJCAI 2015 (Distinguished Paper, Honorary Mention)**.

Professional Service

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Member of a Selection Comitee, *Member of comité de sélection du poste MCF 0620 - Systèmes d'information et bases de données - Université Rennes 1 (2015)*; *Member of comité of sélection des postes 4266 et 4267 - Université Lille 3 (2017)*.

Journal Reviewer, *JAL-WWV 2010, Information System 2013, TKDE 2013, TCS 2014, TKDE 2014, Information System 2014, TODS 2015, VLDB Journal 2015, TODS 2016, Symbolic Logic 2016, TOCL 2016*.

Member of a Program Comitee, *PhD Workshop à CIKM 2011, 2012, RuleML 2015, BDA 2015, BDA 2015, ProvenanceWeek 2016, RR 2016, IJCAI 2016, IC 2017, Program Chair of BDA demonstration track 2017* .

External Reviewer for conferences, *PhD Workshop à VLDB 2009, ICDE 2010, VLDB 2012, ICDT 2012 PODS 2013, ICALP 2013, PODS 2014, LICS 2014, PODS 2014, ICALP 2015, ICDT 2015, ICDT 2016, PODS 2016, PODS 2017*.

Member of a PhD Comitee, *Invited member of the PhD defence of Antoine Amarilli (14-03-2016)* .

2016– **Secretary of the PhD Prize Gilles Kahn**.

2014– **Local Responsible at Lille of the Working Group Automata-Logic-Game-Algebra**.

2016– **Co-animator of the Colloquium Polaris, Seminar of CRISAL**.

2016 **Expert in the program Recherche Formation Innovation Atlanstic 2020 of Région Pays de la Loire**.

Vulgarisation and Valorisation

2017 **Co-organisator of the visits of the departement of computer science of ENS Cachan (with Sylvain Salvati) and ENS Rennes (with Romaric Gaudel)**.

2017 **Writer of a news for the webpage of INS2I describing the paper prized at ICALP 2017 in collaboration with Laure Thiebault**.

2016 **Invitation to the StarDoc (Starting day of all the PhD Candidates of the region of Lille and participation to a discussion on the future of PhD students)**.

2015 **Writer of a news for the webpage of INS2I describing the paper prized at IJCAI 2015 in collaboration with Serge Abiteboul and Laure Thiebault**.

2015 **Interview pour la réalisation d'un article paru dans Lille By INRIA numéro 2 <https://www.inria.fr/centre/lille/actualites/lille-by-inria-n-2-la-recherche-un-sujet-capital-en-europe>**.

Publications

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International Journal with peer reviews.

- Pierre Bourhis, Marco Manna, Michael Morak, Andreas Pieris : Guarded-Based Disjunctive Tuple-Generating Dependencies. *ACM Trans. Database Syst.* 41(4) : 27 :1-27 :45 (2016)
- Pierre Bourhis, Gabriele Puppis, Cristian Riveros, Slawek Staworko : Bounded Repairability for Regular Tree Languages. *ACM Trans. Database Syst.* 41(3) : 18 (2016)
- Serge Abiteboul, Pierre Bourhis, Victor Vianu : Highly Expressive Query Languages for Unordered Data Trees. *Theory Comput. Syst.* 57(4) : 927-966 (2015)
- Pierre Bourhis, Gabriele Puppis, Cristian Riveros : Which XML Schemas are Streaming Bounded Repairable? *Theory Comput. Syst.* 57(4) : 1250-1321 (2015)
- Michael Benedikt, Pierre Bourhis, Clemens Ley : Analysis of Schemas with Access Restrictions. *ACM Trans. Database Syst.* 40(1) : 5 (2015)
- Michael Benedikt, Pierre Bourhis, Clemens Ley : Querying Schemas With Access Restrictions. *PVLDB* 5(7) : 634-645 (2012)
- Serge Abiteboul, Pierre Bourhis, Victor Vianu : Comparing workflow specification languages : A matter of views. *ACM Trans. Database Syst.* 37(2) : 10 (2012)

National Journal with peer reviews.

- C. Jard, T. Chatain and P. Bourhis : Diagnostic temporel dans les systèmes répartis à l'aide des dépliages des réseaux de Petri *Journal Européen des Systèmes Automatisés (JESA)*, Volume 39, Nu 1-2-3, pp. 351-366. Hermes, 2005

International Conferences with peer reviews.

- Michael Benedikt, Pierre Bourhis, Michael Vanden Boom : Characterizing Definability in Decidable Fixpoint Logics. (Best Paper Award Track B) ICALP 2017 : 107 :1-107 :14
- Antoine Amarilli, Pierre Bourhis, Louis Jachiet, Stefan Mengel : A Circuit-Based Approach to Efficient Enumeration. ICALP 2017 : 111 :1-111 :15
- Meghyn Bienvenu, Pierre Bourhis, Marie-Laure Mugnier, Sophie Tison, Federico Ulliana : Ontology-Mediated Query Answering for Key-Value Stores. IJCAI 2017 : 844-851
- Pierre Bourhis, Michael Morak, Andreas Pieris : Making Cross Products and Guarded Ontology Languages Compatible. IJCAI 2017 : 880-886
- Pierre Bourhis, Juan L. Reutter, Fernando Suárez, Domagoj Vrgoc : JSON : Data model, Query languages and Schema specification. PODS 2017 : 123-135
- Antoine Amarilli, Pierre Bourhis, Mikaël Monet, and Pierre Senellart. Combined Tractability of Query Evaluation via Tree Automata and Cycluits. ICDT 2017
- Pierre Bourhis, Juan L. Reutter, Fernando Suarez and Domagoj Vrgoc, JSON : data model, query languages and schema specification PODS 2017
- Michael Benedikt, Pierre Bourhis, Gabriele Puppis and Balder Ten Cate. Querying Visible and Invisible Information. LICS 2016
- Michael Benedikt, Pierre Bourhis and Michael Vanden Boom. A step up in expressiveness of decidable fixpoint logics. LICS 2016
- Pierre Bourhis, Daniel Deutch, Yuval Moskovitch : Analyzing data-centric applications : Why, what-if, and how-to. ICDE 2016 : 779-790
- Serge Abiteboul, Pierre Bourhis, Victor Vianu : A Formal Study of Collaborative Access Control in Distributed Datalog. ICDT 2016 : 10 :1-10 :17
- Antoine Amarilli, Michael Benedikt, Pierre Bourhis, Michael Vanden Boom : Query Answering with Transitive and Linear-Ordered Data. IJCAI 2016 : 893-899
- Pierre Bourhis, Carsten Lutz : Containment in Monadic Disjunctive Datalog, MMSNP, and Expressive Description Logics. KR 2016 : 207-216
- Antoine Amarilli, Pierre Bourhis, Pierre Senellart : Tractable Lineages on Treelike Instances : Limits and Extensions. PODS 2016 : 355-370
- Eleanor Ainy, Pierre Bourhis, Susan B. Davidson, Daniel Deutch, Tova Milo : Approximated Summarization of Data Provenance. CIKM 2015 : 483-492
- Pierre Bourhis, Markus Krötzsch, Sebastian Rudolph : Reasonable Highly Expressive Query Languages - IJCAI-15 Distinguished Paper (Honorary Mention). IJCAI 2015 : 2826-2832
- Antoine Amarilli, Pierre Bourhis, Pierre Senellart : Provenance Circuits for Trees and Treelike Instances. ICALP (2) 2015 : 56-68
- Pierre Bourhis, Michael Morak, Andreas Pieris : Towards Efficient Reasoning Under Guarded-Based Disjunctive Existential Rules. MFCS (1) 2014 : 99-110
- Pierre Bourhis, Gabriele Puppis, Cristian Riveros : Which DTDs are streaming bounded repairable? ICDT 2013 : 57-68
- Serge Abiteboul, Pierre Bourhis, Anca Muscholl, Zhilin Wu : Recursive queries on trees and data trees. ICDT 2013 : 93-104
- Vince Bárány, Michael Benedikt, Pierre Bourhis : Access patterns and integrity constraints revisited. ICDT 2013 : 213-224
- Pierre Bourhis, Michael Morak, Andreas Pieris : The Impact of Disjunction on Query Answering Under Guarded-Based Existential Rules. IJCAI 2013 : 796-802
- Michael Benedikt, Pierre Bourhis, Pierre Senellart : Monadic Datalog Containment. ICALP (2) 2012 : 79-91
- Serge Abiteboul, Pierre Bourhis, Victor Vianu : Highly expressive query languages for unordered data trees. ICDT 2012 : 46-60
- Serge Abiteboul, Pierre Bourhis, Victor Vianu : Comparing workflow specification languages : a matter of views. ICDT 2011 : 78-89
- Serge Abiteboul, Pierre Bourhis, Bogdan Marinoiu : Efficient maintenance techniques for views over active documents. EDBT 2009 : 1076-1087
- Serge Abiteboul, Pierre Bourhis, Bogdan Marinoiu : Satisfiability and relevance for queries over active documents. PODS 2009 : 87-96
- Serge Abiteboul, Pierre Bourhis, Alban Galland, Bogdan Marinoiu : The AXML Artifact Model. (invited paper) TIME 2009 : 11-17

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International Demonstrations in Conferences with peer reviews.

- Pierre Bourhis, Daniel Deutch and Yuval Moskovitch POLYTICS : Provenance-Based Analytics of Data-Centric Applications ICDE 2017
- Eleanor Ainy, Pierre Bourhis, Susan B. Davidson, Daniel Deutch, Tova Milo : PROX : Approximated Summarization of Data Provenance. EDBT 2016 : 620-623
- Bogdan Marinoiu, Serge Abiteboul, Pierre Bourhis, Alban Galland : AXART - Enabling Collaborative Work with AXML Artifacts. PVLDB 3(2) : 1553-1556 (2010)
- Serge Abiteboul, Bogdan Marinoiu, Pierre Bourhis : Distributed Monitoring of Peer-to-Peer Systems. ICDE 2008 : 1572-1575

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