

# Ioana Manolescu-Goujot

## Current position

Senior researcher (*directeur de recherche 2e classe*)

Head of the CEDAR associated team between Inria Saclay–Île-de-France and LIX (CNRS UMR 7161 and Ecole Polytechnique)

Office address: INRIA Saclay, 1 rue Honor d’Estienne d’Orves, 91120 Palaiseau, France

Email: ioana.manolescu@inria.fr, web: <http://pages.saclay.inria.fr/ioana.manolescu>

## Research interests

I am interested in models, algorithms and techniques for efficiently managing large volumes of data with complex structure and semantics. The core scientific areas of my research pertain to query optimization through algebraic techniques, and to storage optimization through indexes and materialized views. A central aspect of my research is distributed data management, in particular in massively parallel and cloud environments.

## University titles

**Habilitation à Diriger des Recherches:** “Optimization Techniques for XML Query Processing”, Université de Paris Sud-XI, 2009. The members of my defense committee were:

- Donald Kossmann (ETH Zurich)
- Torsten Grust (Université de Tuebingen)
- Philippe Pucheral (Université de Versailles Saint-Quentin)
- Serge Abiteboul (Inria Saclay–Île de France)
- Véronique Benzaken (Université de Paris Sud-11)
- Patrick Valduriez (Inria Sophia Antipolis – Méditerranée)

**PhD thesis:** “Optimization techniques for querying heterogeneous distributed data”, 2001, *Université de Versailles Saint-Quentin*. Supervised by Patrick Valduriez and Daniela Florescu.

**Magistère de Mathématiques Fondamentales et Appliquées et d’Informatique** en juillet 1999, *Ecole Normale Supérieure Paris* and *Université Paris VI*.

**Master** at Université de Paris VI and *Ecole Normale Supérieure Paris*, 1998

**Undergraduate** at Université de Paris XI, *Ecole Normale Supérieure Paris* and *Universitatea Politehnica Bucuresti*, Romania (1993-1996).

## Career summary

- |                        |  |
|------------------------|--|
| <b>01/2016 -</b>       | Lead of the CEDAR team with Ecole Polytechnique                                      |
| <b>01/2010-12/2015</b> | Lead of the LEO team, then OAK project, with Université Paris-Sud.                   |
| <b>09/2002-12/2009</b> | Junior Inria researcher in the Gemo team (Inria Futurs then Saclay).                 |
| <b>03/2002-08/2002</b> | Post-doc at Politecnico di Milano, Italy.  |
| <b>12/1998-12/2001</b> | PhD student (research assistant) at Université de Versailles and Inria Rocquencourt. |
| <b>09/1996-09/1998</b> | Foreign student at l’Ecole Normale Supérieure, Paris.                                |

**Teaching** In 2015-2016, I have taught with A. Bifet a course on Architectures for Big Data Management in the 2nd year Master on Data and Knowledge, Université de Paris Saclay. Previously, since 2002, I have taught various level (mostly 2nd year Master) courses on Big Data Management, XML querying, Semantic Web, peer-to-peer computing, Web Services etc. to students from Université Paris Sud, Université Paris Dauphine, and Politecnico di Milano, Italy.

## Editorial responsibilities

- **Associate editor** of PVLB (2017), member of the **PVLDB Endowment Board of Trustees** (since 2016).
- **Editor-in-chief** of the quarterly ACM SIGMOD Record journal from 2010 to 2014 ([www.sigmod.org/record](http://www.sigmod.org/record)).
- **Associate editor** of the ACM Transactions on Internet Technology (TOIT) from 2010 to 2014 and **member of the editorial board** of the Proceedings of VLDB (PVLDB) in 2008-2011.

- **Program chair** of the SSDBM 2016 and EDBT 2010 conferences, and **8 times track (co-)chair** for the conferences SIGMOD, ICDE, EDBT, WWW, and ACM CIKM.
- **Co-chair of the international workshops** Programming Languages for XML (PLAN-X) 2008, in cooperation with ACM SIGPLAN, and Web and Databases (WebDB) 2007, in cooperation with ACM SIGMOD.
- **Program committee member** of more than **70** international conferences and workshops, including **16** times for the top database conferences SIGMOD, VLDB and ICDE.

## Collaborative projects and funding ID

My research contributed to many projects, the main ones being listed below. Those that I coordinated appear in bold.

**International: “DataBridges: Data Integration for Digital Cities”**, a KIC EIT ICT Labs activity (2011-2012); **“OakSad”** Inria-UC San Diego associated team (2013-2015); “Europa: cloud-based architectures for scalable data management”, KIC EIT ICT Labs activity (2012-2013); **“XClean: Declarative Data Cleaning Techniques for XML”**, bilateral project with Portugal (2005-2007); EU FP6 project eDOS on the efficient distribution of open-source software (2004-2007).

**National: “ContentCheck: Models, Algorithms and Tools for Journalistic Fact-Checking”**, national project (2016-2019) **“Scalable and secure tools for large-scale data management”** task of the DigiCosme LABEX (IT network of excellency, 2012-2019); “Business Models for the Cloud” national project (2013-2016); Datalyse *AAP Cloud & Big Data 2012* project on Big Data analytics in the cloud; **“Coordination, dynamicity and efficiency for XML”** national project (2009-2012); **“EdiFlow: data-intensive workflows for visual analytics”** regional project (2008-2011). **“Peer-to-peer”** work package of the WebContent project with Thales, Bongrain, EADS and other academics on generic platforms for warehousing Web data (2005-2008).

## Recent top 5 publications

1. François Goasdoué, Zoi Kaoudi, Ioana Manolescu, Jorge Quiñan Ruiz, Ioana Manolescu and Stamatis Zampetakis: “Cliquesquare: Flat Plans for Massively Parallel RDF Queries”, ICDE Conference 2015.
2. Dario Colazzo, François Goasdoué, Ioana Manolescu and Alexandra Roatis. “RDF Analytics: Lenses for Semantic Graphs”, WWW Conference 2014.
3. Konstantinos Karanasos, Asterios Katsifodimos and Ioana Manolescu: “Delta: Scalable Data Dissemination under Capacity Constraints”, PVLDB Volume 7, no. 4, 2013.
4. Angela Bonifati, Martin Goodfellow, Ioana Manolescu and Domenica Sileo. “Algebraic incremental maintenance of XML Views”, ACM Transactions on Database Systems, ACM, 2013.
5. Asterios Katsifodimos, Ioana Manolescu and Vasilis Vassalos: “Materialized View Selection for XQuery Workloads”, ACM SIGMOD Conference, 2012.

## Awards

IEEE Service Award as a Co-Chair of the Demonstrations Track of IEEE ICDE 2010 conference, mars 2010.

ACM Recognition of Service Award in Appreciation for Contributions to ACM, as a Workshop Co-Chair of ExpDB '06: 1st Int. Workshop on the Performance and Evaluation of Data Management Systems, june 2006.

## PhD supervision

I have co-supervised ten graduated PhD students:

1. Stamatis Zampetakis (2012-2015), currently a senior engineer at Orchestra Networks, France.
2. Alexandra Roatis (2011-2014), currently a post-doc at U. Waterloo, Canada.
3. Jesus Camacho Rodriguez (2011-2014), currently a technical engineer at HortonWorks, USA.
4. Julien Leblay (2010-2013) (currently as associate professor at U. Tsukuba, Japa).
5. Asterios Katsifodimos (2009-2013) (currently a post-doc at TU Berlin, Germany).
6. Konstantinos Karanasos (2009-2012) (currently a researcher at Microsoft Research, Seattle, USA).
7. Wael Khemiri (2008-2011) (currently a senior consultant at Odesys, France).
8. Spyros Zoupanos (2006-2009) (currently a senior developer at Quartet).
9. Andrei Arion (2004-2007) (currently a senior engineer at SCORT, France).
10. Nicoleta Preda (2004-2008) (currently an assistant professor at Université de Versailles-Saint Quentin, France).