

## CURRICULUM VITAE – Gianluca Demartini

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### Education:

- Ph.D.** Computer Science. Leibniz Universität Hannover, Germany, 2011  
Dissertation: “From People to Entities: Typed Search in the Enterprise and the Web”  
Supervisors: prof. Wolfgang Nejdl, prof. Arjen P. de Vries
- M.Sc. *cum laude*** Computer Science. Università degli Studi di Udine, Italy, 2005  
Supervisor: prof. Stefano Mizzaro
- B.Sc.** Computer Science. Università degli Studi di Udine, Italy, 2003  
Supervisor: prof. Alberto Policriti

### Employment:

- 05/2011-now: Post-doc researcher at the **eXascale Infolab**, University of Fribourg, Switzerland.
  - **Lecturer** for Social Computing 2011/2012 at the University of Fribourg, Switzerland.
- 03/2006-04/2011: **L3S Research Center** as a Junior Researcher.
  - **Lecturer** for Web Science 2010/2011 at the Leibniz University of Hannover.
  - **Lecturer** for Artificial Intelligence II 2008/2009 at the Leibniz University of Hannover.
  - Involved in the EU FP7 LivingKnowledge project (<http://livingknowledge-project.eu/>) on topics such as *Entity Search* and *Web Diversity*. Co-author of the project **funding proposal** (approx. 6.2 Mio. Euro overall, with an L3S share of about 1.1 Mio. Euro for a period of 3 years).
  - Until December 2009, involved in the Okkam project (<http://fp7.okkam.org>) on topics such as *Entity Search* and *Identity Management*.
  - Until December 2007, involved in the Nepomuk project (<http://nepomuk.semanticdesktop.org>) on topics such as *Desktop Search* and *Semantic Web*.
- 9/2009-11/2009: Internship at **Yahoo! Research in Barcelona**, Spain.
- 11/2005 – 2/2006: Software Engineer at INSIEL spa. I developed software for Geographical Information Systems used by governmental offices.

## Selected Scientific Publications

### Semantic Web

- Gianluca Demartini, Djellel Eddine Difallah, and Philippe Cudré-Mauroux. **ZenCrowd: Leveraging Probabilistic Reasoning and Crowdsourcing Techniques for Large-Scale Entity Linking**. In: the 21st International Conference on World Wide Web (**WWW 2012**), Lyon, France, April 2012. (Acceptance rate: 12%).
- Enrico Minack, Raluca Paiu, Stefania Costache, Gianluca Demartini, Julien Gaugaz, Ekaterini Ioannou, Paul-Alexandru Chirita, and Wolfgang Nejdl. **Leveraging Personal Metadata for Desktop Search: The Beagle++ System**. In: *Journal of Web Semantics*, 8(1): 37-54, Elsevier, March 2010. (Journal impact factor at publication time: 3.412)

### Information Retrieval

- Alberto Tonon, Gianluca Demartini, and Philippe Cudré-Mauroux. **Combining Inverted Indices and Structured Search for Ad-hoc Object Retrieval**. In: 35th Annual ACM SIGIR Conference (**SIGIR 2012**), Portland, Oregon, USA, August 2012. (Acceptance rate: 20%).
- Gianluca Demartini, Claudiu S. Firan, Tereza Iofciu, Ralf Krestel, and Wolfgang Nejdl. **Why Finding Entities in Wikipedia is Difficult, Sometimes**. In: *Information Retrieval*, 13(5): 534-567, Springer, October 2010. (Journal impact factor at publication time: 1.841)

### Program Committee Membership

SIGIR 2012 Workshop on Time-aware Search, 2012.

35th International ACM Conference on Research and Development in Information Retrieval, **SIGIR 2012**.

Artificial Intelligence meets the Web of Data Workshop at ECAI, 2012.

2nd International Workshop on Learning and Education with the Web of Data (LiLe2012) at WWW, 2012.

34th European Conference on Information Retrieval (**ECIR**), 2012.

20th ACM Conference on Information and Knowledge Management (**CIKM**), 2011.

First International Workshop on Entity-Oriented Search (**EOS**) at SIGIR, 2011.

Posters and Demonstrations Track of the 9th Intern. Semantic Web Conference (**ISWC 2010**).

Personal Information Management (**PIM**) Workshop 2009, 2012.

### Reviewer for Journals

IEEE Transactions on Knowledge and Data Engineering (**TKDE**), 2012

Springer book series: "Theory and Applications of Natural Language Processing", 2012.

**Information Retrieval**, Springer, 2012.

Interactive Learning Environments, Routledge, 2012.

IEEE Computational Intelligence Magazine, 2011.

Knowledge and Information Systems Journal (**KAIS**), Springer, 2011.

Artificial Intelligence Journal (**AIJ**), Elsevier, 2010-2011.

Journal of the American Society for Information Science and Technology (**JASIST**), 2010.

Journal of Network and Computer Applications, Elsevier, 2010.

International Journal of Web Information Systems, Emerald, 2009.

### Tutorials and Invited Talks

Invited talk "Getting Semantics from the Crowd" - Dagstuhl Seminar on Semantic Data Management, 2012.

Full-day tutorial "From Expert Finding to Entity Search on the Web" at ECIR 2012 with Peter Mika, Thanh Tran, and Arjen P. de Vries.

Invited talk "Current Approaches to Search Result Diversification" - Search Computing Workshop, 2010.

### Organization

Entity Ranking Track at the 9th Initiative for the Evaluation of XML Retrieval (**INEX 2009**).

Entity Ranking Track at the 8th Initiative for the Evaluation of XML Retrieval (**INEX 2008**).

### **Reviewer for Conferences**

Demo Track of the 38th International Conference on Very Large Databases **VLDB** 2012.  
Semantic Web Track of the 21st International World Wide Web Conference **WWW** 2012  
Research Track of the 15th International Conference on Extending Database Technology **EDBT** 2012.  
In-Use Track of the 10th International Semantic Web Conference **ISWC** 2011.  
Poster Track of the 17th International World Wide Web Conference **WWW** 2008.  
Poster Track of the 31st International ACM **SIGIR** 2008 Conference.

### **Awards**

Best Demo Award at **ISWC** 2011.  
2nd most Outrageous Idea Award at **ISWC** 2011.  
PhD dissertation award – “Diploma Thesis Award 2011”, Semiramis Research and Service Unit.  
3rd Best Paper Award at LA-WEB 2009.  
Attended Summer Schools “Information Retrieval” (2005), “Multimedia Semantics” (2006), and “Advanced Retrieval and Web Mining” (2007).  
Selected for the **IBM** EMEA Best Student Recognition Event 2006 in Rome.  
World Finalist (representing Italy) of **Microsoft** Imagine Cup 2005.  
Finalist at the Italian **Microsoft** Imagine Cup 2004, 2005, 2006, and 2007.

### **Grants**

International Short Visits grant from the Swiss National Science Foundation (**SNSF**), 2012  
**ACM** Student Travel Support to attend **SIGIR** 2010.  
Co-author of a **EU FP7 IP** project funding proposal (approx. 6.2 Mio. Euro overall, with an L3S share of about 1.1 Mio. Euro for a period of 3 years), 2009.  
First place for the scholarship promoted by **INSIEL** S.p.a. in July 2005 (<http://www.insiel.it/>).

## Complete list of Publications (by type and date):

### Journal papers

- Gianluca Demartini, Iliya Enchev, Joël Gapany, and Philippe Cudré-Maurox. **The Bowlogna Ontology: Fostering Open Curricula and Agile Knowledge Bases for Europe's Higher Education Landscape**. In: "Semantic Web - Interoperability, Usability, Applicability". IOS Press, 2012.
- Gianluca Demartini, Claudiu S. Firan, Tereza Iofciu, Ralf Krestel, and Wolfgang Nejdl. **Why Finding Entities in Wikipedia is Difficult, Sometimes**. In: "Information Retrieval" 13(5): 534-567, Special Issue on Focused Retrieval and Result Aggregation, Springer, October 2010. (Journal impact factor at publication time: 1.841)
- Enrico Minack, Raluca Paiu, Stefania Costache, Gianluca Demartini, Julien Gaugaz, Ekaterini Ioannou, Paul-Alexandru Chirita, and Wolfgang Nejdl. **Leveraging Personal Metadata for Desktop Search: The Beagle++ System**. In: Journal of Web Semantics, 8(1): 37-54, Elsevier, March 2010. (Journal impact factor at publication time: 3.412)

### International Conference Proceedings (Full papers)

- Alberto Tonon, Gianluca Demartini, and Philippe Cudré-Mauroux. **Combining Inverted Indices and Structured Search for Ad-hoc Object Retrieval**. In: 35th Annual ACM SIGIR Conference (SIGIR 2012), Portland, Oregon, USA, August 2012. (Acceptance rate: 20%).
- Gianluca Demartini, Djellel Eddine Difallah, and Philippe Cudré-Mauroux. **ZenCrowd: Leveraging Probabilistic Reasoning and Crowdsourcing Techniques for Large-Scale Entity Linking**. In: the 21st International Conference on World Wide Web (WWW 2012), Lyon, France, April 2012. (Acceptance rate: 12%).
- Julien Gaugaz, Patrick Siehndel, Gianluca Demartini, Tereza Iofciu, Mihai Georgescu, and Nicola Henze. **Predicting the Future Impact of News Events**. In: 34th European Conference on Information Retrieval (ECIR 2012), Barcelona, Spain, April 2012. (Acceptance rate: 21%).
- Gianluca Demartini, Iliya Enchev, Joël Gapany, Philippe Cudré-Maurox. **BowlognaBench-Benchmarking RDF Analytics**. In: First International Symposium on Data-driven Process Discovery and Analysis (SIMPDA 2011), Campione d'Italia, June 2011.
- Tereza Iofciu, Gianluca Demartini, Nick Craswell, and Arjen P. de Vries. **ReFER: effective Relevance Feedback for Entity Ranking**. To appear in: 33rd European Conference on Information Retrieval (ECIR 2011), Dublin, Ireland, April 2011. (Acceptance rate: 20%)
- George Papadakis, Gianluca Demartini, Philipp Kärger, and Peter Fankhauser. **The Missing Links: Discovering Hidden Same-as Links among a Billion of Triples**. To appear in: The 12th International Conference on Information Integration and Web-based Applications & Services (iiWAS2010), Paris, France, November 2010.
- Gianluca Demartini, Claudiu S. Firan, Mihai Georgescu, Tereza Iofciu, Ralf Krestel, and Wolfgang Nejdl. **An Architecture for Finding Entities on the Web**. In: 7th Latin American Web Congress (LA-WEB 2009), Mérida, Yucatan, México, November 2009. *3rd Best Paper Award*.

- Julien Gaugaz, Jakub Zakrzewski, Gianluca Demartini, and Wolfgang Nejdl. **How to Trace and Revise Identities.** In: 6th Annual European Semantic Web Conference (ESWC2009), Heraklion, Greece, June, 2009. (Acceptance rate: 18%)
- Gianluca Demartini, Julien Gaugaz, and Wolfgang Nejdl. **A Vector Space Model for Ranking Entities and Its Application to Expert Search.** In: 31st European Conference on Information Retrieval (ECIR 2009), Toulouse, France, April, 2009. (Acceptance rate: 22%)
- Rodolfo Stecher, Gianluca Demartini and Claudia Niederée. **Social Recommendations of Content and Metadata.** In: 10th International Conference on Information Integration and Web-based Applications & Services (iiWAS2008), Linz, Austria, November, 2008. (Acceptance rate: 30%)
- Gianluca Demartini, Claudiu S. Firan, Tereza Iofciu, Ralf Krestel, and Wolfgang Nejdl. **A Model for Ranking Entities and Its Application to Wikipedia.** In: 6th Latin American Web Congress (LA-WEB 2008), Vila Velha, Espirito Santo, Brasil, October, 2008.
- Gianluca Demartini, Claudiu S. Firan, Tereza Iofciu, and Wolfgang Nejdl. **Semantically Enhanced Entity Ranking.** In: The Ninth International Conference on Web Information Systems Engineering (WISE 2008), Auckland, New Zealand, September, 2008.

#### **International Conference Proceedings (Short Papers, Posters, and Demos)**

- Karl Aberer, Alexey Boyarsky, Philippe Cudré-Maurox, Gianluca Demartini, and Oleg Ruchayskiy. **ScienceWISE: A Web-based Interactive Semantic Platform for Scientific Collaboration.** In: 10th International Semantic Web Conference (ISWC 2011 - Demo), Bonn, Germany, October 2011. *Best Demo Award.*
- Karl Aberer, Alexey Boyarsky, Philippe Cudré-Maurox, Gianluca Demartini, and Oleg Ruchayskiy. **An Integrated Socio-Technical Crowdsourcing Platform for Accelerating Returns in eScience.** In: 10th International Semantic Web Conference (ISWC 2011 - Outrageous Ideas), Bonn, Germany, October 2011. (Acceptance rate: 20%). *2nd most Outrageous Idea Award.*
- Philippe Cudré-Maurox, Gianluca Demartini, Djellel Eddine Difallah, Ahmed Elsayed Mostafa, Vincenzo Russo, and Matthew Thomas. **A Demonstration of DNS3: a Semantic-Aware DNS Service.** In: 10th International Semantic Web Conference (ISWC 2011 - Demo), Bonn, Germany, October 2011.
- Gianluca Demartini, Stefan Siersdorfer, Sergiu Chelaru, and Wolfgang Nejdl. **Analyzing Political Trends in the Blogosphere.** In: 5th International AAAI Conference on Weblogs and Social Media (ICWSM 2011), Barcelona, Spain, July 2011.
- Ralf Krestel, Gianluca Demartini, and Eelco Herder. **Visual Interfaces for Stimulating Exploratory Search.** In: ACM/IEEE Joint Conference on Digital Libraries (JCDL 2011), Ottawa, Canada, June 2011.
- Gianluca Demartini. **ARES: A Retrieval Engine based on Sentiments - Sentiment-based Search Result Annotation and Diversification.** To appear in: 33rd European Conference on Information Retrieval (ECIR 2011 - Demo), Dublin, Ireland, April 2011. (Acceptance rate: 50%)
- Gianluca Demartini, Malik Muhammad Saad Missen, Roi Blanco, and Hugo Zaragoza. **TAER: Time Aware Entity Retrieval.** In: The 19th ACM International Conference on Information and Knowledge Management (CIKM 2010), Toronto, Canada, October 2010. (Acceptance rate: 31%)

- Bodo Billerbeck, Tereza Iofciu, Gianluca Demartini, Claudiu S. Firan, and Ralf Krestel. **Ranking Entities Using Web Search Query Logs**. In: 14th European Conference on Research and Advanced Technology for Digital Libraries (ECDL 2010), Glasgow, Scotland, September 2010. (Acceptance rate: 36%)
- Gianluca Demartini, Malik Muhammad Saad Missen, Roi Blanco, and Hugo Zaragoza. **Entity Summarization of News Articles**. In: 33rd Annual ACM SIGIR Conference (SIGIR 2010 poster session), Geneva, Switzerland, July 2010. (Acceptance rate: 32%)
- Bodo Billerbeck, Gianluca Demartini, Claudiu S. Firan, Tereza Iofciu, and Ralf Krestel. **Exploiting Click-Through Data for Entity Retrieval**. In: 33rd Annual ACM SIGIR Conference (SIGIR 2010 poster session), Geneva, Switzerland, July 2010. (Acceptance rate: 32%)
- Gianluca Demartini. **Comparing People in the Enterprise**. In: 10th International Conference on Enterprise Information Systems, ICEIS 2008, Barcelona, Spain, June, 2008.
- Gianluca Demartini, Paul-Alexandru Chirita, Ingo Brunkhorst, and Wolfgang Nejdl. **Ranking Categories for Web Search**. In: Advances in Information Retrieval , 30th European Conference on IR Research, ECIR 2008, Glasgow, UK, March 30-April 3, 2008. LNCS 4956, pp. 564-569. (Acceptance rate: 57%)
- Sergey Chernov, Pavel Serdyukov, Paul-Alexandru Chirita, Gianluca Demartini, and Wolfgang Nejdl. **Building a Desktop Search Test-bed**. Proceedings of the 29<sup>th</sup> European Conference on Information Retrieval 2007. (Acceptance rate: 30%)
- Gianluca Demartini and Stefano Mizzaro. **A Classification of IR Effectiveness Metrics**. Proceedings of the 28<sup>th</sup> European Conference on Information Retrieval 2006. (Acceptance rate: 39%)
- Vincenzo Della Mea, Gianluca Demartini, Luca Di Gaspero, and Stefano Mizzaro. **Experiments on Average Distance Measure**. Proceedings of the 28<sup>th</sup> European Conference on Information Retrieval 2006. (Acceptance rate: 39%)

#### Workshop papers

- Philippe Cudré-Mauroux, Gianluca Demartini, Christophe Gueret, and Benoit Perroud. **Downscaling Entity Registries for Ad-Hoc Environments**. In: First International Workshop on Downscaling the Semantic Web co-located with the 9th Extended Semantic Web conference, Heraklion, Greece, May 2012.
- Djellel Eddine Difallah, Gianluca Demartini, and Philippe Cudré-Mauroux. **Mechanical Cheat: Spamming Schemes and Adversarial Techniques on Crowdsourcing Platforms**. In: The First International Workshop on Crowdsourcing Web search (CrowdSearch 2012) at WWW 2012, Lyon, France, April 2012.
- Gianluca Demartini and Stefan Siersdorfer. **Dear Search Engine: What's your opinion about...? - Sentiment Analysis for Semantic Enrichment of Web Search Results**. In: Semantic Search 2010 Workshop located at the 19th Int. World Wide Web Conference WWW2010, Raleigh, NC, USA, April 2010. (Acceptance rate: 55%)
- Gianluca Demartini, Tereza Iofciu, and Arjen P. de Vries. **Overview of the INEX 2009 Entity Ranking Track**. In: 8th International Workshop of the Initiative for the Evaluation of XML Retrieval, INEX 2009 Brisbane, Australia, December 2009.

- Enrico Minack, Gianluca Demartini, and Wolfgang Nejdl. **Current Approaches to Search Result Diversification**. In: "1st International Workshop on Living Web: Making Web Diversity a true asset" at ISWC 2009, Washington DC, USA, October 2009.
- Tereza Iofciu and Gianluca Demartini. **Time based Tag Recommendation using Direct and Extended Users Sets**. In: ECML PKDD Discovery Challenge 2009, Bled, Slovenia, September 2009.
- Gianluca Demartini, Arjen P. de Vries, Tereza Iofciu, and Jianhan Zhu. **Overview of the INEX 2008 Entity Ranking Track**. In: 7th International Workshop of the Initiative for the Evaluation of XML Retrieval, INEX 2008 Dagstuhl Castle, Germany, December, 2008.
- Nick Craswell, Gianluca Demartini, Julien Gaugaz, and Tereza Iofciu. **L3S at INEX 2008: Retrieving Entities using Structured Information**. In: 7th International Workshop of the Initiative for the Evaluation of XML Retrieval, INEX 2008 Dagstuhl Castle, Germany, December, 2008.
- Gianluca Demartini, and Claudia Niederée. **Finding Experts on the Semantic Desktop**. In: Personal Identification and Collaborations: Knowledge Mediation and Extraction (PICKME 2008) Workshop at ISWC 2008, Karlsruhe, Germany, October, 2008.
- Jianhan Zhu, Arjen P. de Vries, Gianluca Demartini, and Tereza Iofciu. **Relation Retrieval for Entities and Experts**. In: Future Challenges in Expertise Retrieval (fCHER 2008), SIGIR 2008 Workshop, Singapore, July, 2008.
- Julien Gaugaz and Gianluca Demartini. **Entity Identifiers for Lineage Preservation**. In: 1st international workshop on Identity and Reference on the Semantic Web (IRSW2008) hosted by the 5th European Semantic Web Conference ESWC-08, Tenerife, Spain, June, 2008.
- Gianluca Demartini. **How Many Experts? - A New Task for Enterprise Search Evaluation**. In: Workshop on Novel Methodologies for Evaluation in Information Retrieval at the 30th European Conference on IR Research, ECIR 2008, Glasgow, Scotland, April, 2008.
- Sergey Chernov, Gianluca Demartini, Eelco Herder, Michał Kopycki, and Wolfgang Nejdl. **Evaluating Personal Information Management Using an Activity Logs Enriched Desktop Dataset**. In: "Personal Information Management Workshop at CHI 2008" PIM 2008.
- Gianluca Demartini, Claudiu S.Firan, and Tereza Iofciu. **L3S at INEX 2007: Query Expansion for Entity Ranking Using a Highly Accurate Ontology**. In: "Focused Access to XML Documents", 6th International Workshop of the Initiative for the Evaluation of XML Retrieval, INEX 2007 Dagstuhl Castle, Germany, December, 2007. Selected Papers.
- Gianluca Demartini. **Finding Experts Using Wikipedia**. In "Finding Experts on the Web with Semantics Workshop at ISWC 2007 + ASWC 2007" FEWS 2007.
- Gianluca Demartini. **Leveraging Semantic Technologies for Enterprise Search**. In "First Ph.D. Workshop in CIKM" PIKM 2007.

## Unrefereed papers

- Gianluca Demartini. **From People to Entities: Typed Search in the Enterprise and the Web**. In: SIGIR Fourm, June, 2011, Volume 45 Number 1, pp 73.
- T. Beckers, P. Bellot, G. Demartini, L. Denoyer, C.M. De Vries, A. Doucet, K.N. Fachry, N. Fuhr, P. Gallinari, S. Geva, W.-C. Huang, T. Iofciu, J. Kamps, G. Kazai, M. Koolen, S. Kutty, M. Landoni, M. Lehtonen, V. Moriceau, R. Nayak, R. Nordlie, N. Pharo, E. San Juan, R. Schenkel, X. Tannier, M. Theobald, J.A. Thom, A. Trotman and A.P. de Vries. **Report on INEX 2009**. In: SIGIR Fourm, June 2010, Volume 44 Number 1, pp 38-56.
- Gianluca Demartini, Ludovic Denoyer, Antoine Doucet, Khairun Nisa Fachry, Patrick Gallinari, Shlomo Geva, Wei-Che Huang, Tereza Iofciu, Jaap Kamps, Gabriella Kazai, Marijn Koolen, Monica Landoni, Ragnar Nordlie, Nils Pharo, Ralf Schenkel, Martin Theobald, Andrew Trotman, Arjen P. de Vries, Alan Woodley, Jianhan Zhu. **Report on INEX 2008**. In: SIGIR Fourm, June 2009, Vol. 43 Number 1, pp 22-28.
- Sergey Chernov, Gianluca Demartini, and Julien Gaugaz. **L3S Research Center at TREC 2006 Enterprise Track**. In The Fifteen Text REtrieval Conference Proceedings (TREC 2006).
- Vincenzo Della Mea, Gianluca Demartini, Luca Di Gaspero, and Stefano Mizzaro. **Measuring Retrieval Effectiveness with Average Distance Measure (ADM)**. Information Wissenschaft und Praxis, 57(8):433-443, 2006.