

Dr. Bernardo Cuenca Grau

Oxford University Computing Laboratory
Wolfson Building
OX1 3QD, Oxford
United Kingdom.

berg@comlab.ox.ac.uk
Phone: +44 (1865) 311-747
Citizenship: Spanish
Date of Birth: 27th October 1978

EDUCATION

Ph.D. Computer Science,
Universidad de Valencia, Valencia, Spain
Viva Date: November 25th, 2005.
Result: “Sobresaliente Cum Laude” (maximum possible score).

Licenciatura (Joint BS/MS) in Physics, October 1996–June 2001
Universidad de Valencia, Valencia, Spain

Primer Ciclo de Ingeniería Informática (B.S. in Computer Science) 1999–2004
Universidad de Valencia, Valencia, Spain

RESEARCH EXPERIENCE

December 2007–Present: *Postdoctoral Research Officer*
Oxford University Computing Laboratory, University of Oxford, Oxford, UK.
Funded by the *RINO project*(Reasoning Infrastructure for Ontologies and Instances),
an EPSRC Research project.

December 2005–December 2007: *Research Fellow*
School of Computer Science, University of Manchester, Manchester, UK.
Funded by the *TONES project*(Thinking Ontologies), an Information Societies Tech-
nology 3-year STREP FET project within the EU 6th Framework Program.

November 2003–November 2005: *Visiting Scholar*
Univ. of Maryland Institute for Advanced Computer Studies, MD, USA.
Supported by a doctoral fellowship from the Spanish government.

May 2002–October 2003: *Ph.D. Student*
Universidad de Valencia, Department of Computer Science, Valencia, Spain
Supported by a doctoral fellowship from the Spanish government.

FELLOWSHIPS OBTAINED

Beca para la Formación del Profesorado Universitario (F.P.U)
May 2002–December 2005
National Fellowship whose the goal is to award outstanding students with four years
of independent funding to conduct a Ph.D. as well as to promote visits to research
institutions in Europe and overseas.

AWARDS AND NOMINATIONS

Best Paper Award. Third European Semantic Web Conference (ESWC-2006),
Budva, Montenegro (11-14 June 2006).

Best Paper Award Nomination. International World Wide Web Conference (WWW-
2008), Beijing, China (21-25 April 2008)

Best Paper Award Nomination. Fifth European Semantic Web Conference (ESWC-
2008), Tenerife, Spain (1-5 June 2008).

Invited Talks

- *Modularizing OWL Ontologies*. IBM T.J Watson Research Center. Hawthorne, New York, USA, June 2005.
- *Representing Structured Objects Using Description Graphs*. Keynote at the ESWC 2008 Workshop on Reasoning on the Web: Scalability and Commonsense

Invited Reviewer, International Journals

- Artificial Intelligence (AIJ)
- Journal of Artificial Intelligence Research (JAIR)
- Journal of Automated Reasoning (JAR)
- Elsevier's Journal of Web Semantics (JWS)
- Elsevier's Journal of Information and Software Technology
- Elsevier's Journal of Information Sciences
- IEEE Transactions on Education

Program Committee, International Conferences and Workshops

- 6th European Semantic Web Conference (ESWC 2009)
- 7th International Semantic Web Conference (ISWC 2008)
- 2008 International Conference on Conceptual Modeling (ER 2008)
- 18th European Conference on Artificial Intelligence (ECAI 2008)
- 5th European Semantic Web Conference (ESWC 2008)
- 3thrd Asian Semantic Web Conference (ASWC 2008)
- ISWC-2008 Workshop: Nature Inspired Reasoning for the Semantic Web (NatuReS 2008)
- ESWC 2008 Workshop: Knowledge Reuse and Re-engineering (KRRSW 2008)
- ESWC 2008 Workshop: Ontologies, Reasoning and Modularity (WORM 2008)
- 6th International Semantic Web Conference (ISWC 2007)
- 4th European Semantic Web Conference (ESWC 2007)
- 20th International Workshop on Description Logics (DL 2007)
- First International Workshop on Modular Ontologies (WoMo 2006)
- Twenty-first National Conference on Artificial intelligence (AAAI 2006)
- 21st ACM Symposium on Applied Computing (SAC 2006)
- Invited Reviewer: 20th Int. Joint Conf. on Artificial Intelligence (IJCAI 2007).

Organization, International Workshops and Conferences

- ESWC 2008 Workshop, Ontologies: Reasoning and Modularity (WORM 2008).
- Second International Workshop on Modular Ontologies (WoMo 2007).
- Second International Workshop OWL:Experiences and Directions (OWLEd 2006). Athens, Georgia, November 2006.
- First International Workshop OWL:Experiences and Directions (OWLEd 2005). Galway, Ireland, November 2005.

Editorial Activities

- Editor: OWL Experiences And Directions Workshop Proceedings, 2006, CEUR Online Proceedings Series.

- Editor: OWL Experiences And Directions Workshop Proceedings, 2005, CEUR Online Proceedings Series.

Memberships

- Member of the W3C OWL Working Group (Dec. 2007 - Present).
- Member of the OWL: Experiences and Directions Workshop Steering Committee.
- Associate Member, Oriel College, Oxford.

FOREIGN LANGUAGES

My native languages are Spanish and Valenciano/Catalan. I am fluent in English, French, and German. I can communicate effectively in Italian and Mandarin Chinese.

List of Publications of Bernardo Cuenca Grau

Refereed Journal Papers

1. OWL 2: The Next Step for OWL. Bernardo Cuenca Grau, Ian Horrocks, Boris Motik, Bijan Parsia, Peter Patel-Schneider, Ulrike Sattler. *Journal of Web Semantics (JWS)*. Elsevier Science. Awaiting publication.
2. Modular Reuse of Ontologies: Theory and Practice. Bernardo Cuenca Grau, Ian Horrocks, Yevgeny Kazakov, Ulrike Sattler. *Journal of Artificial Intelligence Research (JAIR)*, Vol 31, pp 273-318 2008. AAAI Press
3. Pellet: A Practical OWL DL Reasoner. Evren Sirin, Bijan Parsia, Bernardo Cuenca Grau, Aditya Kalyanpur, Yarden Katz. *Journal of Web Semantics*, Volume 5, Issue 2, 2007. Elsevier Science.
4. Combining OWL Ontologies Using \mathcal{E} -connections. Bernardo Cuenca Grau, Bijan Parsia, and Evren Sirin. *Journal Of Web Semantics*, Volume 4, Issue 1, 2006. Pages 40-59. Elsevier Science.
5. Swoop: A Web Ontology Editing Browser. Aditya Kalyanpur, Bijan Parsia, Evren Sirin, Bernardo Cuenca Grau, and James Hendler. *Journal of Web Semantics*. Volume 4, Issue 2, pages 144-153, 2006. Elsevier Science.
6. How to Teach Basic Quantum Mechnics to Computer Scientists and Electrical Engineers. Bernardo Cuenca Grau. *IEEE Transactions on Education*. Vol 47, Number 2, May 2004.

Refereed Conference Papers

7. Representing Structured Objects using Description Graphs. Boris Motik, Bernardo Cuenca Grau, Ian Horrocks and Ulrike Sattler. *Proceedings of the 11th International Conference on the Principles of Knowledge Representation and Reasoning (KR 2008)*, September 16-19 2008.
8. Privacy-preserving Query Answering in Logic-based Information Systems. Bernardo Cuenca Grau and Ian Horrocks. *Proceedings of the 18th European Conference on Artificial Intelligence (ECAI 2008)*. Patras, Greece, July 21-25 2008.
9. Metalevel Information in Ontology-Based Applications. Thanh Tran Duc, Peter Haase, Boris Motik, Bernardo Cuenca Grau, and Ian Horrocks. *Proceedings of the 23rd AAAI Conf. on Artificial Intelligence (AAAI 2008)*, Chicago, IL, USA, July 13-17 2008.
10. Safe and Economic re-use of ontologies: a logic-based methodology and tool support. Ernesto Jimenez Ruiz, Bernardo Cuenca Grau, Thomas Schneider, Ulrike Sattler, Rafael Berlanga. *Proceedings of the 5th European Semantic Web Conference (ESWC-2008)*, Tenerife, Spain, June 01-05 2008. Springer LNCS.

11. Structured Objects in OWL: Representation and Reasoning. Boris Motik, Bernardo Cuenca Grau, Ulrike Sattler. Proceedings of the 17th International World Wide Web Conference (WWW-2008), Beijing, China, April 21-25, 2008.
12. History Matters: Incremental Ontology Reasoning Using Modules. Bernardo Cuenca Grau, Christian Halaschek-Wiener, and Yevgeny Kazakov. Proceedings of the 6th International Semantic Web Conference (ISWC-2007), Busan, Korea, November 11-15 2007. Lecture Notes in Computer Science 4825 Springer 2007, ISBN 978-3-540-76297-3
13. Just the Right Amount: Extracting Modules from Ontologies. Bernardo Cuenca Grau, Ian Horrocks, Yevgeny Kazakov and Ulrike Sattler. WWW 2007, Proceedings of the 16th International World Wide Web Conference, Banff, Canada, May 8-12, 2007. Pages 717-727.
14. A Logical Framework for Modularity of Ontologies. Bernardo Cuenca Grau, Ian Horrocks, Yevgeny Kazakov and Ulrike Sattler. IJCAI 2007, Proceedings of the 20th International Joint Conference on Artificial Intelligence, Hyderabad, India, January 6-12, 2007.
15. Repairing Unsatisfiable Concepts in OWL Ontologies. Aditya Kalyanpur, Bijan Parsia, Evren Sirin, Bernardo Cuenca Grau. The Semantic Web: Research and Applications, 3rd European Semantic Web Conference, ESWC 2006, Budva, Montenegro, June 11-14, 2006, Proceedings. Volume 4011 Lecture Note in Computer Science, pages 170-184, Springer.
16. From Wine to Water: Optimizing Description Logic Reasoning for Nominals. Evren Sirin, Bernardo Cuenca Grau, and Bijan Parsia. Proceedings, Tenth International Conference on Principles of Knowledge Representation and Reasoning (KR-2006), Lake District of the United Kingdom, June 2-5, 2006. Pages 90-99, AAAI Press.
17. Modularity and Web Ontologies. Bernardo Cuenca Grau, Bijan Parsia, Evren Sirin, and Aditya Kalyanpur. Proceedings, Tenth International Conference on Principles of Knowledge Representation and Reasoning (KR-2006), Lake District of the United Kingdom, June 2-5, pages 198-209, AAAI Press, 2006.
18. Integrating Datalog with OWL: Exploring the \mathcal{AL} -Log Approach. Edna Ruckhaus, Vladimir Kolovski, Bijan Parsia, and Bernardo Cuenca Grau. Logic Programming, 22nd International Conference, ICLP 2006, Seattle, WA, USA, August 17-20, 2006, Proceedings. Vol. 4079 Lecture Notes in Computer Science. Pages 455-456. Springer.
19. Generalized Link Properties for Expressive \mathcal{E} -connections of Description Logics. Bijan Parsia and Bernardo Cuenca Grau. Proceedings, The Twentieth AAAI Conference (AAAI-2005), July 9-13, 2005, Pittsburgh, Pennsylvania, USA Pages 657-662. AAAI Press.

20. Semantic Web Research Trends and Directions. Jennifer Golbeck, Bernardo Cuenca Grau, Christian Halaschek-Wiener, Aditya Kalyanpur, Bijan Parsia, Andrew Schain, Evren Sirin, James A. Hendler. Pattern Recognition and Machine Intelligence, First International Conference, PReMI 2005, Kolkata, India, December 20-22, 2005, Proceedings. Vol. 3776 Lecture Notes in Computer Science. Pages 160-169. Springer.
21. Working with Multiple Ontologies on the Semantic Web. Bernardo Cuenca Grau, Bijan Parsia, Evren Sirin. The Semantic Web - ISWC 2004: Third International Semantic Web Conference, Hiroshima, Japan, November 7-11, 2004. Proceedings. Vol. 3298 Lecture Notes in Computer Science. Pages 620-634. Springer.
22. A Possible Simplification of the Semantic Web Architecture. Bernardo Cuenca Grau. Proceedings of the 13th International Conference on World Wide Web, WWW 2004, New York, NY, USA, May 17-20, 2004. ACM. Pages 704-713.

Other Papers

Refereed International Workshop Papers

23. Modeling Ontologies Using OWL, Description Graphs and Rules. Boris Motik, Bernardo Cuenca Grau, and Ulrike Sattler. Proceedings of the Fifth International Workshop OWL: Experiences and Directions (OWLEd 2008). Karlsruhe, Germany, Oct. 26-27 2008.
24. The Representation of Structured Objects in DLs Using Description Graphs. Boris Motik, Bernardo Cuenca Grau, and Ulrike Sattler. Proceedings of the 21st International Workshop on Description Logics (DL 2008), Dresden, Germany, May 13-18, 2008.
25. Safe and Economic re-use of ontologies: a logic-based methodology and tool support. Ernesto Jimenez Ruiz, Bernardo Cuenca Grau, Ulrike Sattler, Thomas Schneider, Rafael Berlanga. Proceedings of the 4th International Workshop: OWL Experiences and Directions (OWLEd 2008), Washington DC, USA, April 01-02 2008. CEUR Proceedings. **Note:** A version of this paper will also appear in proceedings of the 21st International Description Logics Workshop (DL-2008).
26. Ontology Reuse: Better Safe than Sorry. Bernardo Cuenca Grau, Ian Horrocks, Yevgeny Kazakov and Ulrike Sattler. In Proceedings of the 20th Description Logic Workshop, Brixen, Italy, June 8-10, 2007. Vol. 250 CEUR Proceedings.
27. Extracting Modules from Ontologies: a Logic-based Approach. Bernardo Cuenca Grau, Ian Horrocks, Yevgeny Kazakov and Ulrike Sattler. OWLEd 2007, Proceedings of the 3thrd International Workshop: OWL Experiences and Directions, Innsbruck, Austria June 6-8, 2007.
28. Modular Ontology Languages Revisited. Bernardo Cuenca Grau and Oliver Kutz. SWeCKa 2007: Proc. of the IJCAI-2007 Workshop on Semantic Web for Collaborative Knowledge Acquisition, Hyderabad, India, January 7, 2007.

29. Next Steps for OWL. Bernardo Cuenca Grau, Ian Horrocks, Bijan Parsia, Peter Patel-Schneider and Ulrike Sattler. OWLEd 2006, Proceedings of the 2nd International Workshop: OWL Experiences and Directions, Athens, Georgia November 10-11, 2006.
30. Will my Ontologies Fit Together? Bernardo Cuenca Grau, Ian Horrocks, Oliver Kutz, and Ulrike Sattler. DL 2006, Proceedings of the 19th International Workshop on Description Logics, Lake District, UK, June 2006. Vol. 189 CEUR Proceedings.
31. Beyond Asserted Axioms; Fine Grained Justifications for OWL DL Entailments. Aditya Kalyanpur, Bijan Parsia, and Bernardo Cuenca Grau. DL 2006, Proceedings of the 19th International Workshop on Description Logics, Lake District, UK, June 2006. Vol. 189 CEUR Proceedings.
32. Automatic Partitioning of OWL Ontologies Using \mathcal{E} -connections. Bernardo Cuenca Grau, Bijan Parsia, Evren Sirin, and Aditya Kalyanpur. DL 2005, Proceedings of the 18th International Workshop on Description Logics, Edinburgh, UK, 2005. Vol. 147 CEUR Proceedings.
33. Representing Qualitative Spatial Information in OWL DL. Yarden Katz and Bernardo Cuenca Grau. OWLEd 2005, Proceedings of the 1st International Workshop: OWL Experiences and Directions, Galway, Ireland November 2005.
34. Modularizing OWL Ontologies. Bernardo Cuenca Grau, Bijan Parsia, Evren Sirin, and Aditya Kalyanpur. Proceedings of the KCAP-2005 Workshop on Ontology Management. Banff, Canada, October 2 2005.
35. From $\mathcal{SHOQ}(\mathcal{D})$ Towards \mathcal{E} -connections. Bernardo Cuenca Grau, and Bijan Parsia. Proceedings of the 2004 International Workshop on Description Logics (DL2004), Whistler, British Columbia, Canada, June 6-8, 2004. CEUR Workshop Proceedings.

Invited Contributions to Books and Monographs

36. Ontology Integration Using \mathcal{E} -connections. Bernardo Cuenca Grau, Bijan Parsia, Evren Sirin. To Appear in Springer's LNCS Monograph on Ontology Modularization
37. Extracting Modules from Ontologies: a Logic-based Approach. Bernardo Cuenca Grau , Ian Horrocks , Yevgeny Kazakov and Ulrike Sattler. To Appear in Springer's LNCS Monograph on Ontology Modularization

Contributions to World Wide Web Consortium (W3C) Standardization Proposals

38. OWL 2 Web Ontology Language: Model-Theoretic Semantics. Participation: Editor. W3C Working Draft.
39. OWL 2 Web Ontology Language: Profiles. Participation: Editor. W3C Working Draft
40. OWL 2 Web Ontology Language: XML Serialization. Participation: Contributor. W3C Working Draft
41. OWL 2 Web ontology Language: Mapping to RDF Graphs. Participation: Contributor. W3C Working Draft

Papers in Poster and Alternate Track Proceedings

42. Modularizing OWL Ontologies. Bernardo Cuenca Grau, Bijan Parsia, Evren Sirin, and Aditya Kalyanpur. The Semantic Web - ISWC 2005: Fourth International Semantic Web Conference, Galway, Ireland, November 2005. Poster Track Proceedings.
43. Swoop: A Web Ontology Engineering Framework. Aditya Kalyanpur, Bijan Parsia, Evren Sirin, and Bernardo Cuenca Grau. The Semantic Web - ISWC 2005: Fourth International Semantic Web Conference, Galway, Ireland, November 2005. Poster Track Proceedings.

Papers in Spanish Journals and Conferences

44. ProSE: A Protg plugin for Reusing Ontologies, Safe and conomique. E. Jimenez-Ruiz, B. Cuenca-Grau, U. Sattler, T. Schneider and R. Berlanga. 13th Spanish Conference on Software Engineering and Databases, JISBD 2008. Gijn, Spain. pp. 449-452.
45. Tecnologías para la Web Semántica. Bernardo Cuenca Grau. Mundo Electrónico. Febrero 2004
46. Tecnologías Web de Tercera Generación. Bernardo Cuenca Grau. Mundo Electrónico. Enero 2004

Tutorials at International Conferences

- Learning from the Masters: Understanding Ontologies Found on the Web. Tutorial at ISWC 2006, November 2006.