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Gloria Bordogna is a senior research scientist at the National Research Council of Italy (CNR) within the Institute for the study of the Dynamics of Environmental Processes (IDPA) located in Milan, Italy. From 2003 to 2010, she was adjunct professor of Information Retrieval and Geographic Information Systems at the Faculty of Engineering of Bergamo University.

In 1984 she received the Laurea degree in Physics from the University of Milan.

Her research interests mainly focus on soft computing methods for the management of imprecision and uncertainty of textual and geographic information, multimedia information retrieval models, Flexible Query Languages for Information Retrieval Systems and Data Base Management Systems, Decision making for Environmental applications.

Her current research is in the field of Web information retrieval, environmental knowledge acquisition by fuzzy data mining, and multi-source geographic information fusion.

She participated in the European funded research projects *e-court*, *Peng*, and *Ide-Univers*.

Participations in Scientific Program Committees

- *"Workshop Italiano sulla Logica Fuzzy"*, from 1995 to 2007
- *"IEEE International conference on Fuzzy Systems"*, from 1996 to 2002, 2007, 2010
- *"International Conference on Flexible Query Answering Systems"*, from 2000 to 2011
- *ACM/SIGIR* from 2001 to 2004, 2007, from 2009 to 2011
- *EUROFUSE* from 2002 to 2004 ,
- *European Conference on Information Retrieval Research*, from 2003 to 2011
- *ACM-SAC Track on Information Access and Retrieval*, from 2004 to 2012
- *ENVIROINFO 2005: Informatics for Environmental Protection*,
- *ACM CIKM* from 2006 to 2011
- *IJCAI 2005*
- *IEEE ICDE 2007*
- *Program chair of DEXA workshop FlexDBIST* from 2006 to 2011
- *International Conference on Systems and Networks Communications* from 2006 to 2009
- *WWW2008*,
- *IEEE IRI - International Conference on Information Reuser and Integration*, from 2008 to 2010
- *AIEMPro - Workshop on Automated Information Extraction in Broadcasting -* from 2008 to 2011
- *CompGeo International Workshop on Computational Geoinformatics* from 2008 to 2009
- *IEEE WCCI2008, World Congress on Computational Intelligence, Hong Kong, 1-6 Giugno 2008.*
- *SOCPAR International Conference on Soft Computing and Pattern Recognition*, from 2009 to 2010
- *RIAO 2010, 28-30 april, 2010 – Paris.*
- *IEEE WIC ACM WI - Joint International Conference IEEE/ACM on Web Intelligence / Intelligent Agent Technologies*, from 2009 to 2010

- *ECML PKDD 2010, European Conference on Machine Learning / Principles and Practice of Knowledge Discovery in Databases, Barcelona, Spain, September 20-24, 2010*
- *HIS'11 Eleventh International Conference on Hybrid Intelligent Systems, 2011*
- *IMMM 2011 Advanced in Information Mining and Management , October 23-28, 2011 - Barcellona, Spagna*

Scientific organization activities since 2006

- Special session entitled "Uncertain information in the Digital Earth" , at the *13th International Conference on Information Processing and Management of Uncertainty in Knowledge Based Systems, Dortmund, Germany, June 28 - July 2, 2010*
- Co-Chair of the special Track on "Information Access and Retrieval" of the ACM Symposium on Applied Computing from 2008.
- Co-Chair of the "Joint International Conference IEEE/WIC/ACM on Web Intelligence / Intelligent Agent Technologies", *15-18 September 2009, Milano.*
- Special session entitled "flexible management of spatial data in GISs" at the *IEEE Conf. On Fuzzy Systems FUZZIEEE, London, 26-28 July 2007.*
- Participation to the organizing committee of the International Conference on Flexible Querying Answering Systems, *7-10/06/06, DISCO, Università di Milano Bicocca, Milano.*

Edited Volumes and Special Issues

- " **Flexible Databases supporting Imprecision and Uncertainty**", Gloria Bordogna, Giuseppe Psaila, editors, Springer Verlag, nella serie "Studies in Fuzziness and Soft Computing", Vol. 203 2006, XV, 346 p., Hardcover. ISBN: 3-540-33288-X , 2006
- " **Spatio-temporal Databases: Flexible Querying and Reasoning** ", Rita de Caluwe, Guy de Trè, Gloria Bordogna editors, Springer Verlag, ISBN: 978-3-540-22214-9 Agosto 2004.
- "Recent Issues on Fuzzy Databases" , Gloria Bordogna, Gabriella Pasi editors, Physica Verlag, nella serie "Studies in Fuzziness and Soft Computing", ISBN: 978-3-7908-1319-7 Vol. 53, 236 pp., Agosto 2000. 3-7908-1319-2 Sven Helmer, *Fuzzy Sets and Systems, 140(1), 16 November 2003, pp.229-230*
- "Management of Imprecision and Uncertainty in Information Systems" Gloria Bordogna, Gabriella Pasi guest-editors, "Journal of the American Society for Information Science", Volume 49, numero 3, 1998.

Publications

Articles in Journals since 2003

- G. Bordogna, G. Pasi A Quality driven Hierarchical Data Divisive Soft Clustering for Information Retrieval, submitted to **Knowledge-Based Systems**, Elsevier, in press , 17-6-2011
- G.Bordogna, G. Ghisalberti, G.Psaila, *Geographic Information Retrieval: Modeling Uncertainty of User's Context.* in **Fuzzy Sets and Systems** , in press June 2011
- G. Bordogna, A. Campi, G. Psaila, S. Ronchi, *Disambiguated Query Suggestions and Personalized Content-Similarity & Novelty Ranking of Clustered Results to Optimize Web Searches* in **Information Processing and Management**, in press 2011.
- G.Bordogna, G. Psaila, *Matrioshka's Soft Approaches to personalize Web Exploration*, **Control and Cybernetics**, vol 39,(4), 925-957, 2010
- G.Bordogna, M. Pagani, G.Pasi, G. Psaila, *Managing uncertainty in location-based queries*, **Fuzzy Sets and Systems** doi:10.1016/j.fss.2009.02.016, Vol: 160, N: 15, pp. 2241-2252, 2009
- Stroppiana D. Brivio P.A, Boschetti M., Carrara P., Bordogna G., *A fuzzy anomaly indicator for environmental monitoring at continental Scale*, **Ecological indicators** ISSN 9 1470-160X Vol: 9, N: 1 pp. 92-106, 2009.

- Carrara P., Bordogna G., Stroppiana D. Brivio P.A., Nelson A., Boschetti M., A flexible multi-source spatial data fusion system for environmental status assessment at continental scale, **Journal of Geographical Information Science**, Vol.22 (7), 2008
- G.Bordogna, G. Psaila Soft Aggregation in Flexible Databases Querying based on the Vector p-norm, **International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems**, World Scientific Publishing Company, Vol 17 (1), 25-40, August 2009
- G. Bordogna G. Pasi, A Flexible Multi Criteria Information Filtering Model, **Soft computing**, DOI 10.1007/s00500-009-0476-3, Vo (14) N. 8, Springer Verlag, June, 2010, pp. 799-809
- G.Bordogna, P.Carrara, M.Pagani, M.Pepe, A.Rampini, Extending INSPIRE Metadata to imperfect temporal descriptions, **JRC IJSDIR Vol (4) 2009 (electronic edition)**.
- G.Bordogna, M. Pagani, A Flexible content-based image retrieval model and a customizable system for the retrieval of Shapes, **Journal of the American Society for Information Science and Tecnology**, Volume 61 Issue 5, Pages 907 – 926, Marzo 2010
- G.Bordogna, G.Pasi, “A flexible model for the evaluation of soft Conditional Preferences in fuzzy databases” **Int. Journal of Intelligent Systems** vol 23(12) , pp. 1264-1281, 2008.
- G. Bordogna, G. Pasi, “A flexible approach to evaluating soft conditions with unequal preferences in fuzzy databases”, *Special Topic Issue on Advances in Fuzzy Database Technology*, **International Journal of Intelligent Systems**, Vol. 22, Issue 7, pp. 665-689, July 2007.
- G.Bordogna, S. Chiesa, D. Geneletti, “Linguistic modelling of imperfect spatial information as a basis for simplifying spatial analysis, **Information Sciences**, Elsevier, Vol 176, N. 4, pp 366-389, 2006.
- G.Bordogna, G.Pasi, “Personalised indexing and retrieval of heterogeneous structured documents”, **Information Retrieval Journal**, ISSN 1386-4564 (Print) 1573-7659 (online), DOI 10.1007/s10791-005-5664-x, 8(2), 301-318, 2005.
- G.Bordogna, G.Pasi, “A Model for a SOft Fusion of Information Accesses on the WEB”, **Fuzzy Sets and Systems**, Vol 148/1, 105-118, 2004.
- G.Bordogna, S. Chiesa, “A Fuzzy Object based Data Model for Imperfect Spatial Information Integrating Exact-Objects and Fields, **Int. Journal of Uncertainty, Fuzziness and Knowledge-Based Systems**, 11(1), 23-41, 2003.
- G.Bordogna, G.Pasi, R. Yager, “Soft Approaches to distributed information Retrieval”, **Int. Journal of Approximate Reasoning**, 34(2-3), 105-120, 2003.

Articles in proceedings of Conferences since 2003

- Stroppiana D. Boschetti M, Brivio P.A. , Bordogna G., Carrara P. and Boschetti L., (2011), A fuzzy based approach for the identification of burned perimeters from Landsat TM images in Europe, Poster presented at the Workshop on Sentinel scientific products for Land, Ocean, and Cryosphere - Assessment & Consolidation, 22-24 March 2011, ESRIN, Frascati, Italy.
- Stroppiana D., Boschetti M., Bordogna G., Boschetti L., and Brivio P.A., Mapping Areas Affected by Fires across Natural and Agricultural Ecosystemsin Europe from Spectral Indices, presented at European Geosciences Union - General Assembly 2011 Vienna, Austria, 03 – 08 April 2011
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- G. Bordogna, G. Pasi, A Quality-Driven Soft Hierarchical Clustering of textual documents, *World Conference on Soft Computing*, May 23-25 2011
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- G. Bordogna, G. Psaila, Fuzzy Associative Summaries for Databases, *World Conference on Soft Computing*, May 23-25 2011

- *Boschetti M., Carrara P., Bordogna G., Weissteiner C. J., Böttcherd K., Brivio P.A., Assessing Land Degradation Syndromes by Soft Fusion of Socioeconomic and Environmental Information, Gi4DM 2010 Geomatics for Crisis Management, Torino, 2-4/2/2010.*
- *G. Bordogna, A. Campi, G. Psaila, S. Ronchi, A Cluster Manipulation Paradigm for Mobile Web Search Interaction, in Italian Information Retrieval Conference (IIR), 23-25/1/2010.*
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- *M. Pagani, G. Bordogna, M. Valle "Mining multidimensional data using clustering techniques", DEXA Workshop FLEXDBIST-07, Regensburg, Germany, 3 Settembre 2007.*
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- G. Bordogna, Giuseppe Psaila, *Fuzzy Spatial SQL*, in *proc. of FQAS04, LNAI 3055, 24-26 June, Lyon, 2004*.
- G. Bordogna, G. Pasi, R.R. Yager "Soft Approaches to Distributed Information Retrieval", in *proc. of IPMU 2004, Perugia, 4-9 Luglio 2004*.
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- G. Bordogna, G. Pasi, "Modeling Preferences in Fuzzy Queries by Tuning the Evaluation Function of Selection Conditions", in *proc. of IFSA 2003, Istanbul Luglio 2003*.

Chapters in Books since 2003

- Bordogna G, Bucci F., Carrara P., Pepe, M., Rampini A., *Flexible Querying of Imperfect Temporal Metadata in Spatial Data Infrastructures*, in *Advanced Database Query Systems: Techniques, Applications and Technologies*, Li Yan and Zongmin Ma eds., Information Science Reference, DOI: 10.4018/978-1-60960-475-2.ch006, IGI Global, Hershey PA, USA, 140-159, 2011.
- Bordogna G, Campi, A., Ronchi S., Psaila G., *Web Search Results Discovery by Multigranular Graphs*, in *Ramon Brena, Adolfo Guzman eds, Quantitative Semantics and Soft Computing Methods for the Web: Perspectives and Applications*, to be published in 2011 by IGI Global.
- Bordogna G, Boschetti M., Brivio P.A., Carrara P., Pagani M., Stroppiana D., *Fusion Strategies based on the OWA Operator in Environmental Applications*, in *Recent Developments in the Ordered Weighted Averaging Operators: Theory and Practice*, Kacprzyk J., Yager R.R., Beliakov G., (eds), Springer Verlag Vol. 265, 1st Edition., ISBN: 978-3-642-17909-9 2011, 2011, XIV, 298 p.
- G. Bordogna, M. Pagani, G. Pasi, *Imperfect Multisource Spatial data Fusion based on a Local Consensual Dynamics*, in *Uncertainty Approaches for Spatial Data Modeling and Processing*, Kacprzyk, J., Petry F. E., Yazici, A. (eds), Springer Verlag, ISBN: 978-3-642-10662-0, 2010, pp 79-94
- D. Kraft G. Bordogna, G. Pasi, *Fuzzy Set Theory. Encyclopedia of Library and Information Sciences, Third Edition DOI: 10.1081/E-ELIS3-120043233*, Copyright 2010 by Taylor & Francis, Published on 16- 2- 2010.
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- G. Bordogna, G. Psaila, *Customizable Flexible Querying for Classical Relational Databases*, In J. Galindo (ed.) *Handbook of Research on Fuzzy Information Processing in Databases*. Hershey, PA, USA: Information Science Reference, ISBN: 978-1-59904-853-6, 2008.
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- P.A.Brivio, M.Boschetti, P.Carrara, D.Stroppiana, G. Bordogna, "Anomalie nello stato della copertura vegetale in Africa da serie storiche di dati satellitari" nel Volume "Clima e cambiamenti climatici: le attività di ricerca del CNR", sezione "Paleoclimatologia e clima storico. Contributi sulla ricostruzione del clima passato mediante ogni tipo di proxy e dati storici" B. Carli, G. Cavarretta, M. Colacino, S. Fuzzi (eds), 2007.
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