



Curriculum Vitae Europass

Personal information

Surname(s) / First name(s) **Belussi Alberto**
Address(es) Via Badia, 46a – 25127 Brescia (BS), Italy
Telephone(s) 329.6508545 (mobile)
Fax(es) --
E-mail(s) alberto.belussi@univr.it (office)
Nationality(-ies) Italian
Date of birth 10/04/1965 – Brescia (Italy)
Gender Male

Work experience

Teaching

Dates	since 2004
Occupation or position held	Associate Professor in Computer Engineering
Name and address of employer	Università degli Studi di Verona, Dipartimento di Informatica, Strada le Grazie, 15 – Verona, Italy http://www.univr.it
Type of business or sector	University
Main activities and responsibilities	Teacher of Undergraduate Courses in the context of the Degree in Computer Science: <ul style="list-style-type: none">- Databases and Web (2004-2008)- Databases (since 2009) Teacher of Graduate Courses in the context of the Master Degree in Intelligent and Multimedia Systems <ul style="list-style-type: none">- Geographical Information Systems (2004-2009) Teacher of Graduate Courses in the context of the Master Degree in Computer Science and Engineering <ul style="list-style-type: none">- Geographical and Multimedia Information Systems (2009-2013)- Advanced in Databases (2014-2020)- Foundations of information systems (since 2020) Teacher of Graduate Courses in the context of the Master Degree in Medical Bioinformatics <ul style="list-style-type: none">- Fundamentals of Database Systems (2015-2020) - in English Teacher of Graduate Courses in the context of the Master Degree in Computer Engineering for Robotics and Smart Industry <ul style="list-style-type: none">- Advanced database & information systems (since 2020) - in English

Dates	1998-2003
Occupation or position held	Teaching assistant in Computer Engineering
Name and address of employer	Università degli Studi di Verona, Dipartimento di Informatica, Strada le Grazie, 15 – Verona, Italy http://www.univr.it
Type of business or sector	University
Main activities and responsibilities	Teacher of Undergraduate Courses in the context of the Degree in Computer Science:

- Formal Languages and Compilers (1996)
- Programming Languages (1997)
- Databases and Information Systems (1999-2000)
- Databases and Web (2001-2003)

Teacher of Graduate Courses in the context of the Master Degree in Intelligent and Multimedia Systems

- Databases: advanced systems and GIS (1999-2001)
- Geographical Information Systems (2002-2003)

Dates	1995, 1996
Occupation or position held	External lecturer
Name and address of employer	CILEA, Consorzio interuniversitario , Segrate – Milano, Italy http://www.cilea.it
Type of business or sector	Education
Main activities and responsibilities	Co-Teacher of three editions of the following course for employees of public agencies: “La progettazione dei sistemi informativi territoriali” (regarding the design of spatial databases for geographical applications)

Dates	1993-1996
Occupation or position held	Seminars
Name and address of employer	Politecnico di Milano Piazza Leonardo da Vinci, Milan - Italy http://www.polimi.it
Type of business or sector	University
Main activities and responsibilities	Tutoring during Ph.D in some undergraduate courses.

Research Projects

Dates	2022 – now
Occupation or position held	Task leader
Name of funding agency	UE PNRR, MIUR (Ministero dell’istruzione, dell’università e della ricerca), Italy
Type of business or sector	University
Main activities and responsibilities	Task leader for the Task S6_RT1.2 – User-generated content, big data and machine learning for a smarter tourism industry of the research topic NEW DIGITAL TECHNOLOGIES – Spoke 6 TOURISM, CULTURE AND CREATIVE INDUSTRIES

Dates	2003 – 2004
Occupation or position held	Project Manager and GIS researcher
Name of funding agency	MIUR (Ministero dell’istruzione, dell’università e della ricerca), Italy
Type of business or sector	University
Main activities and responsibilities	Principal investigator for the unit at University of Verona of the PRIN project “ SPA.DA.@WEB ” concerning the representation and managing of spatial data in web systems

Dates	2001 – 2002
Occupation or position held	GIS researcher
Name of funding agency	MIUR (Ministero dell’istruzione, dell’università e della ricerca), Italy
Type of business or sector	University
Main activities and responsibilities	Participation as GIS expert to the PRIN project “ SPA.DA. ” concerning the representation and processing of spatial data in geographical information systems.

Dates	June 2000 – March 2001
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Occupation or position held	GIS researcher
Name of funding agency	European Union
Type of business or sector	University
Main activities and responsibilities	Participation as GIS expert to the European project “ DEAFIN ” concerning the design of the database and web interface for managing data describing the Vacant Sites of some European Regions.

Applied Research Projects

Dates	March 2022 – Feb 2023 (renewed for 10 months)
Occupation or position held	Principal investigator
Name of funding agency	Il Carpino ASP, Italy
Type of business or sector	Public Administration
Main activities and responsibilities	Coordination of the activity regarding the design and development of tools for the management of spatial data regarding Natura 2000 project. Project name: “Progetto Fonda Alto Borago”
Dates	April 2021 – July 2022
Occupation or position held	Principal investigator
Name of funding agency	Regione Veneto, Italy
Type of business or sector	Public Administration
Main activities and responsibilities	Coordination of the activity regarding the design and development of tools for the management of tourist flows in the city of Verona. Project name: “PALESTRE DIGITALI”
Dates	September 2018 – April 2019
Occupation or position held	Principal investigator and GIS expert
Name of funding agency	Politecnico di Milano (Polo di Cremona), Italy
Type of business or sector	Public Administration
Main activities and responsibilities	Coordination of the activity regarding the design and development of tools for supporting the mapping between the Italian SINFI (Sistema Informativo Nazionale Federato delle Infrastrutture) and the INSPIRE data specification (European Directive) Project name: “Verifica della trasformazione della specifica dei dati del progetto nazionale SINFI nell’equivalente specifica europea INSPIRE”
Dates	June 2016 – December 2016
Occupation or position held	Principal investigator and Project manager
Name of funding agency	Comune di Verona, Italy
Type of business or sector	Public Administration
Main activities and responsibilities	Coordination of the activity for the design and implementation of an extension of the application for mobile devices (APP) produced in a previous project in order to include new sections for the tourists having the VERONACARD for the main points of interest in the city of Verona.
Dates	February 2016 – January 2017
Occupation or position held	Principal investigator and GIS expert
Name of funding agency	Politecnico di Milano (Polo di Cremona), Italy
Type of business or sector	Public Administration
Main activities and responsibilities	Coordination of the activity regarding the design and development of tools for supporting the mapping between the Italian National Core and the INSPIRE data specification (European Directive) Project name: “Realizzazione dello strumento IDMT per la definizione e applicazione ai dati del mapping semantico tra INSPIRE e il National Core italiano”
Dates	January – February 2016
Occupation or position held	Principal investigator and GIS expert
Name of funding agency	Ministero dei beni e delle attività culturali e del turismo, Italy
Type of business or sector	Public Administration

Main activities and responsibilities	Coordination of the activity regarding the mapping between CIDOC-CRM (an ontology based standard for cultural heritage) and the database of the project SITAR (Sistema informativo territoriale archeologico di Roma) Project name: Le attività di mapping del modello dati SITAR e del tracciato schedografico NIOBE verso lo standard CIDOC-CRM-Archeo del progetto ARIADNE e trasformazione dei dati in formato RDF
Dates	2015-2016 (36 months)
Occupation or position held	Principal investigator and Project manager
Name of funding agency	Urbangap s.r.l. and University of Verona
Type of business or sector	Private sector and Univeristy
Main activities and responsibilities	Coordination of the activity for the design of tools for supporting the development of web application and the automatic generation of code starting from formal specification of data sets.
Dates	July 2014 – December 2014
Occupation or position held	Principal investigator and Project manager
Name of funding agency	Comune di Verona, Italy
Type of business or sector	Public Administration
Main activities and responsibilities	Coordination of the activity for the design and implementation of an application for mobile devices (APP) for providing the tourists with georeferenced information about the events and points of interest in the city of Verona.
Dates	since 2007
Occupation or position held	Senior GIS consultant
Name of funding agency	CISIS (Centro Interregionale per i Sistemi informatici, geografici e statistici), Italy
Type of business or sector	Public Administration
Main activities and responsibilities	Participation as GIS expert to the following projects: <ul style="list-style-type: none"> • GeoUML tools - Design and Development of the GeoUML Catalogue tool • GeoUML tools - Design and Development of the GeoUML Validator tool • Data Modelling - Design of the Spatial DB of Regione Veneto at conceptual and physical level • Data Modelling - Contribution to the definition of the Italian National Core using the GeoUML Catalogue
Dates	2006 – 2010
Occupation or position held	Senior GIS consultant
Name of funding agency	Comune di Cremona, Italy
Type of business or sector	Public Administration
Main activities and responsibilities	Participation as GIS expert to the project for the design of a spatial database from conceptual level to physical implementation
Dates	2006 – 2009
Occupation or position held	Senior GIS consultant
Name of funding agency	Regione Lombardia, Italy
Type of business or sector	Public Administration
Main activities and responsibilities	Participation as GIS expert to the projects: <ul style="list-style-type: none"> • Design and prototyping of an architecture for the Regional SDI • Design and prototyping of tools and methodology for the data integration and geometric harmonization of the new productions and the existing regional data.
Dates	september 2003 – june 2004
Occupation or position held	Senior GIS consultant
Name of funding agency	INTESA Stato-Regioni-Enti Locali, Italy
Type of business or sector	Public Authority
Main activities and responsibilities	Participation as GIS expert to the definition of a conceptual model (GeoUML) for the specification of

the reference content of the spatial databases of Italian national bodies.

Dates	1988-1999
Occupation or position held	Database and GIS consultant
Name of funding agency	Public and private companies (Regione Lombardia and Politecnico di Milano)
Type of business or sector	Public and private companies
Main activities and responsibilities	Participation as GIS expert to several research and application projects founded by Regione Lombardia. Participation as Database expert to some research projects (PRIN – Progetti di rilevante Interesse Nazionale) founded by MIUR (Ministero dell'istruzione, dell'università e della ricerca).

Dates	since 2002
Occupation or position held	Senior consultant
Name of funding agency	Direzione Informatica – University of Verona, Italy
Type of business or sector	Public Administration

Research activities

Dates	1992-1997
Occupation or position held	Ph.D student
University	Politecnico di Milano, Dipartimento di Elettronica e Informazione, Italy
Research sector	Spatial databases: data models and query processing optimization
Main activities and responsibilities	During this period the research activity has been concentrated on the following topics: <ul style="list-style-type: none">• Definition of a reference data model at logical level for geo-relational data base management systems and mapping rules towards real GIS systems.• Study of new techniques for the optimization of spatial queries, in particular for what regards the selectivity estimation of range queries (in cooperation with Prof. Christos Faloutsos at University of Maryland, USA). Main Publication: <ul style="list-style-type: none">• A. Belussi and C. Faloutsos "Self Spatial Join Selectivity Estimation Using Fractal Concepts", ACM Transactions on Information Systems, Vol. 16(2), April 1998, pp. 161-201

Dates	1997-1999
Occupation or position held	Postdoctoral position
University	Politecnico di Milano and University of Verona
Research sector	Constraints databases: data models for spatial data
Main activities and responsibilities	During this period the research activity has been concentrated on the following topics: <ul style="list-style-type: none">• Representation and manipulation of spatial data in constraints databases.• Managing temporal dimension in geographical applications. Main Publication: <ul style="list-style-type: none">• A. Belussi, E. Bertino, B. Catania "An Extended Algebra for Constraints Databases", IEEE Transactions on Knowledge and Database Engineering, Vol. 10(5), September 1998, pp 686-705

Dates	since 1999
Occupation or position held	Associate Professor (since 2004), Teaching assistant (before 2004)
University	University of Verona, Dipartimento di Informatica
Research sector	Conceptual modeling of spatial databases, Multi-accuracy spatial databases, Interoperability in GIS, Designing and managing of Spatial Data Infrastructures, archaeological data in GIS, Spatial Big Data.
Main activities and responsibilities	During this period the research activity has been concentrated on the following topics: <ul style="list-style-type: none">• Machine learning technique applied to the optimization of spatial processing in Big Data Systems• Spatial query in Big Data Systems: processing and optimization

- Robustness of spatial datasets with respect to spatial predicates evaluation
- Spatial data validation
- Spatial predicates and their properties (in particular, topological relations).
- Data models for the representation of multi-accuracy spatial information.
- Modeling archaeological data with spatial and temporal dimensions
- General architectures and solutions for building and managing SDI at regional and national level.

Publications:

- Migliorini, Sara; Gambini, Mauro; Quintarelli, Elisa; Belussi, Alberto, Tracking social provenance in chains of retweets «KNOWLEDGE AND INFORMATION SYSTEMS», vol. 65 , n. 10 , 2023 , pp. 3967-3994
- Vu, Tin; Migliorini, Sara; Eldawy, Ahmed; Belussi, Alberto, Spatial Data Generators Spatial Gems , Association for Computing Machinery , 2022 , pp. 13-24
- Vu, Tin; Belussi, Alberto; Migliorini, Sara; Eldawy, Ahmed, Towards a Learned Cost Model for Distributed Spatial Join: Data, Code & Models in Proceedings of the 31st ACM International Conference on Information & Knowledge Management (CIKM '22) , Atti di "31st ACM International Conference on Information & Knowledge Management (CIKM'22)" , Atlanta GA USA , October 17 - 21, 2022 , 2022 , pp. 4550-4554
- Migliorini, Sara; Quintarelli, Elisa; Gambini, Mauro; Belussi, Alberto; Carra, Damiano, Sequence recommendations for groups: A dynamic approach to balance preferences «Information Systems», vol. 108 , 2022 , pp. 1-18
- Migliorini, Sara; Quintarelli, Elisa; Belussi, Alberto, Tracking Data Provenance of Archaeological Temporal Information in Presence of Uncertainty «ACM JOURNAL ON COMPUTING AND CULTURAL HERITAGE» , vol. 15 , n. 2 , 2022 , pp. 1-32
- Migliorini, Sara; Carra, Damiano; Belussi, Alberto, Distributing Tourists Among POIs with an Adaptive Trip Recommendation System «IEEE TRANSACTIONS ON EMERGING TOPICS IN COMPUTING», vol. 9, n. 4, 2021
- Migliorini, Sara; Belussi, Alberto; Quintarelli, Elisa; Carra, Damiano, CoPart: a context-based partitioning technique for big data «JOURNAL OF BIG DATA» , vol. 8 , n. 1 , 2021 , pp. 1-28
- Vu, Tin; Belussi, Alberto; Migliorini, Sara; Eldawy, Ahmed, A Learned Query Optimizer for Spatial Join, in Proceedings of the 29th International Conference on Advances in Geographic Information Systems , Atti di "29th International Conference on Advances in Geographic Information Systems (SIGSPATIAL '21)" , Beijing, China , 2-5 November 2021, pp. 458-467
- Belussi, Alberto; Migliorini, Sara; Eldawy, Ahmed, Skewness-Based Partitioning in SpatialHadoop «ISPRS INTERNATIONAL JOURNAL OF GEO-INFORMATION», vol. 9, n. 4, 2020, pp. 1-19
- Migliorini, S.; Belussi, A.; Quintarelli, E., Promoting data provenance tracking in the archaeological interpretation process, in Proceedings of PIE 2020: Processing Information Ethically - Workshop of the 23rd International Conference on EDBT/ICDT 2020", Copenhagen; Denmark , 30 March 2020 , 2020 , pp. 1-6
- Belussi, Alberto; Migliorini, Sara; Negri, Mauro; Pelagatti, Giuseppe, A template-based approach for the specification of 3D topological constraints, «Geoinformatica», 2020, pp. 1-30
- MIGLIORINI, Sara; BELUSSI, Alberto, A Balanced Solution for the Partition-based Spatial Merge join in MapReduce in Proceedings of DARLI-AP 2020: Data Analytics Solutions for Real-Life Applications - Workshops of the 23rd EDBT/ICDT 2020, Copenhagen, Denmark, 30th March-2nd April, 2020, pp. 1-7
- Migliorini, Sara; Gambini, Mauro; Belussi, Alberto, A Blockchain-based Solution to Fake Check-ins in Location-Based Social Networks in Proceedings of the 3rd ACM SIGSPATIAL International Workshop on Analytics for Local Events and News , ACM , Atti di "3rd ACM SIGSPATIAL International Workshop on Analytics for Local Events and News" , Chicago, IL, USA , November 05, 2019 , 2019 , pp. 1-4
- Belussi, Alberto; Carra, Damiano; Migliorini, Sara; Negri, Mauro, Efficient MapReduce computation of topological relations for big geometries in Proceedings of the 8th ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data , Atti di "8th ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data" , Chicago, Illinois , November 05, 2019 , 2019 , pp. 1-8
- Migliorini, S.; Quintarelli, E.; Carra, D.; Belussi, A., Sequences of Recommendations for Dynamic Groups: What is the Role of Context? in Proceedings of IEEE International Congress on Big Data , Atti di "IEEE International Congress on Big Data" , Milan, Italy , 8-

13 July 2019 , 2019 , pp. 1-8

- Migliorini, S.; Gambini, M.; Belussi, A.; Combi, C., The blockchain role in ethical data acquisition and provisioning in CEUR Workshop Proceedings, Volume 2417, 2019 , CEUR , Proceedings of the "1st International Workshop on Processing Information Ethically, PIE 2019 (CAiSE 2019)" , Rome; Italy , 4 June 2019 , 2019 , pp. 1-6
- Vu, Tin; Migliorini, Sara; Eldawy, Ahmed; Belussi, Alberto, Spatial Data Generators in Proceedings of the 1st ACM SIGSPATIAL International Workshop on Spatial Gems (SpatialGems 2019) , Atti di "1st ACM SIGSPATIAL International Workshop on Spatial Gems (SpatialGems 2019)" , Chicago, IL, USA , November 05, 2019 , 2019 , pp. 1-6
- Migliorini, S.; Quintarelli, E.; Carra, D.; Belussi, A., What is the role of context in fair group recommendations? in CEUR Workshop Proceedings, Volume 2417, 2019 , CEUR , Atti di "1st International Workshop on Processing Information Ethically, PIE 2019 (CAiSE 2019)" , Rome; Italy , 4 June 2019 , 2019 , pp. 1-6
- Migliorini, S.; Gambini, M.; Belussi, A.; Combi, C., The blockchain role in ethical data acquisition and provisioning in CEUR Workshop Proceedings, Volume 2417, 2019 , CEUR , Atti di "1st International Workshop on Processing Information Ethically, PIE 2019 (CAiSE 2019)" , Rome; Italy , 4 June 2019 , 2019 , pp. 1-6
- Migliorini, S.; Quintarelli, E.; Carra, D.; Belussi, A., Sequences of Recommendations for Dynamic Groups: What is the Role of Context? in Proceedings of IEEE International Congress on Big Data , Atti di "IEEE International Congress on Big Data" , Milan, Italy , 8-13 July 2019 , 2019 , pp. 1-8
- Alberto Belussi, Sara Migliorini, Ahmed Eldawy, Detecting Skewness of Big Spatial Data in SpatialHadoop, in Proceedings of the International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2018), November 6 - 9, 2018, Seattle, Washington, USA
- Alberto Belussi, Damiano Carra, Sara Migliorini, Mauro Negri and Giuseppe Pelagatti, What Makes Spatial Data Big? A Discussion on How to Partition Spatial Data, accepted as full paper at the conference GIScience '18, 10th International Conference on Geographic Information Science, 28-31 August 2018, Melbourne, Australia
- Migliorini, Sara; Grossi, Piergiiovanna; Belussi, Alberto, An Interoperable Spatio-Temporal Model for Archaeological Data Based on ISO Standard 19100 «ACM JOURNAL ON COMPUTING AND CULTURAL HERITAGE», vol. 11 , n. 1 , 2017 , pp. 1-28
- Belussi, Alberto; Migliorini, Sara, A Spatio-Temporal Framework for Managing Archeological Data su «Annals of Mathematics and Artificial Intelligence», August 2017, Volume 80, Issue 3–4, pp 175–218
- Belussi, Alberto; Migliorini, Sara; Negri, Mauro; Giuseppe, Pelagatti, Establishing Robustness of a Spatial Dataset in a Tolerance-Based Vector Model «TRANSACTIONS IN GIS», vol. 21, n. 4, 2017, pp. 722-747
- Basso, Patrizia; Grossi, Piergiiovanna; Bruno, Brunella; Belussi, Alberto; Migliorini, Sara, From Rome, to Verona, to the Agro areas: Roundtrip. An experimentation of interoperability between SITAR, SITAVR and SITAIS «Archeologia e calcolatori» , vol. Supplemento 9 , n. 2017 , 2017 , pp. 157-170
- Bruno, Brunella; Basso, Patrizia; Belussi, Alberto; Grossi, Piergiiovanna; Migliorini, Sara, Il work in progress della carta archeologica di Verona: primi passi metodologici, modello dati e documenti condivisi dal sistema informativo archeologico in Proceedings of Arcaeofoss. Free, libre and open source software e open format nei process di ricerca archaeologic, VIII edizione , Oxford , Archaeopress , Atti di "Proceedings of Arcaeofoss. Free, libre and open source software e open format nei process di ricerca archaeologic, VIII edizione" , Catania , 18-19 giugno 2013 , 2016 , pp. 141-149
- Migliorini, Sara; Belussi, Alberto; Negri, Mauro; Pelagatti, Giuseppe, Towards massive spatial data validation with SpatialHadoop in Proceedings of the 5th ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data , New York, NY, USA , ACM , Atti di "The 5th ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data (BigSpatial '16)" , Burlingame, California, USA , October 31, 2016 , 2016 , pp. 18-27
- Belussi, Alberto; Migliorini, Sara; Negri, Mauro; Pelagatti, Giuseppe, Snap Rounding with Restore: an Algorithm for Producing Robust Geometric Datasets «ACM TRANSACTIONS ON SPATIAL ALGORITHMS AND SYSTEMS», vol. 2 , n. 1 , 2016 , pp. 1-36
- Alberto Belussi; Sara Migliorini; Mauro Negri; Giuseppe Pelagatti, Impact of Data Representation Rules on the Robustness of Topological Relation Evaluation «Geoinformatica», vol. 19, n. 2, 2015, pp. 1-44
- Patrizia Basso, Alberto Belussi, Mirella Serlorenzi, Sara Migliorini, Andrea De Tommasi, Piergiiovanna Grossi, Managing Time Dimension in the Archaeological Urban Information System of the Historical Heritage of Roma and Verona, Atti di "Computer Applications and

- Quantitative Methods in Archaeology (CAA 2014)", Parigi , 22-25 Aprile , 2014
- Alberto Belussi, Jody Marca, Mauro Negri and Giuseppe Pelagatti, Application of the GeoUML Tools for the Production and Validation of Inspire Datasets, in Atti di "INSPIRE 2013: The Green Renaissance", Firenze, 23-27 June 2013, 2013 , pp. 1-1
 - Alberto Belussi, Sara Migliorini, Mauro Negri, Giuseppe Pelagatti, On Robust Interpretation of Topological Relations in Identity and Tolerance Models in Atti di "21st ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL GIS 2013)" , Orlando, Florida, USA , 5-8 Nov 2013 , 2013 , pp. 478-481
 - Patrizia Basso, Alberto Belussi, Piergiorgiana Grossi, Sara Migliorini, Towards the creation of an Archaeological Urban Information System: Data Modeling of the Historical Heritage of Verona, in Atti di "AGILE 2013, Workshop on Integrating 4D, GIS and Cultural Heritage", Leuven, Belgium , 14-17 May 2013 , 2013 , pp. 1-3
 - Barbara Catania, Giovanna Guerrini, Alberto Belussi, Federica Mandreoli, Riccardo Martoglia, Wilma Penzo, Wearable Queries: Adapting Common Retrieval Needs to Data and Users in Atti di "DBRank 2013, 7th International Workshop on Ranking in Databases (VLDB '13)" , Riva del Garda, Italy , August 30th, 2013 , 2013 , pp. 1-3
 - Alberto Belussi, Sara Migliorini, A framework for integrating multi-accuracy spatial data in geographical applications «Geoinformatica» , vol. 16 , n. 3 , 2012 , pp. 1-39
 - Alberto Belussi, Barbara Catania, Sara Migliorini, Approximate Queries for Spatial Data Advanced Query Processing , Barbara Catania, Lakhmi C. Jain , Springer Verlag Germany , 2012 , pp. 83-127
 - Alberto Belussi, Sara Migliorini, Distributed Integration of Spatial Data with Different Positional Accuracies in Bridging the Geographic Information Science eds. J. Gensel, D. Josselin, D. Vandenbroucke , Springer Verlag Germany , Proceedings of "International AGILE'2012 Conference" , Avignon (France) , April, 24-27, 2012 , 2012 , pp. 161-178
 - Alberto Belussi, Barbara Catania, Paola Podestà, Topological Operators: a Relaxed Query Processing Approach «Geoinformatica» , vol. 16 , n. 1 , 2012 , pp. 67-110
 - Belussi A., Liguori F., Marca J., Migliorini S., Negri M., Pelagatti G., Visentini P., Validation of Geographical Datasets against Spatial Constraints at Conceptual Level in «THE INTERNATIONAL ARCHIVES OF THE PHOTOGRAMMETRY, REMOTE SENSING AND SPATIAL INFORMATION SCIENCES» vol. XXXVIII n. 4/C21 , Proceedings of "29th Urban Data Management Symposium" , Delft, The Netherlands , 28-30 September 2011 , 2011 , pp. 89-93
 - Sara Migliorini, Mauro Gambini, Alberto Belussi, Mauro Negri, Giuseppe Pelagatti, Workflow Technology for Geo-Processing: The Missing Link , Proceedings of "2nd International Conference on Computing for Geospatial Research & Application (COM.Geo '11)" , Washington, DC, USA , May 23-25 2011 , 2011 , ACM
 - Alberto Belussi, Sara Migliorini, Mauro Negri, Giuseppe Pelagatti, Managing Collapsed Surfaces in Spatial Constraints Validation in Geospatial Thinking eds. M. Painho, M.Y. Santos and H. Pundt , Springer , Proceedings of "The 13th AGILE International Conference on Geographic Information Science" , Guimarães, Portugal , 11-14 May, 2010 , 2010 , pp. 259-278
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 - A. Belussi, S. Migliorini, M. Negri, G. Pelagatti, *From the Conceptual Design of Spatial Constraints to their Implementation in Real Systems*, Atti di "17th ACM SIGSPATIAL International Conference on Advances in GIS", Seattle, Washington, USA, Nov. 4-6, 2009, pp. 448-451.
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 - A. Belussi, F. Liguori, J. Marca, M. Negri and G. Pelagatti, *Ownership definition and instances integration in highly coupled Spatial Data Infrastructures* in Lecture Notes in Geoinformation and Cartography a cura di Lars Bernard et. al. , Berlin - Heidelberg , Springer , Atti di "AGILE 2008" , Girona, Spain , 5-8th May, 2008 , 2008 , pp. 379-399.
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- C. Combi, S. Migliorini, B. Oliboni, A. Belussi, *GeoMTGM: A Graphical Data Model for Semistructured, Geographical, and Temporal Data*, AA. VV. *Spatial Data on the Web: modeling and management*, Berlin, Springer Verlag, 2007, pp. 15-41
 - AA. VV., *Spatial Data on the Web: modeling and management*, a cura di A. Belussi, B. Catania, E. Clementini, E. Ferrari, Berlin, Springer-Verlag, 2007.
 - P. Podestà, B. Catania, A. Belussi, *Using Qualitative Information in Query Processing over Multiresolution Maps* *Spatial Data on the Web: modeling and management*, Springer Verlag, 2007, pp. 159-186.
 - A. Belussi, M. Negri, G. Pelagatti, *An ISO TC 211 Conformant Approach to Model Spatial Integrity Constraints in the Conceptual Design of Geographical Databases* in *Lecture Notes in Computer Science* a cura di John F. Roddick et al., Springer, Atti di "ER 2006 (CoMoGIS workshop)", Tucson, AZ, USA, 6-9 Novembre 2006, pp. 100-109.
 - A. Belussi, M. A. Brovelli, M. Negri, G. Pelagatti, F. Sansò, *Dealing with Multiple Accuracy Levels in Spatial Databases with Continuous Update*, Atti di "The Seventh International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences (Spatial Accuracy 2006)", Lisbon, Portugal, 5 - 7 Luglio 2006, pp. 203-212.
 - A. Belussi, M. Negri, G. Pelagatti, *Modelling Spatial Whole-Part Relationships using an ISO-TC211 conformant approach* «Information and Software Technology», vol. 48, 2006, pp. 1095-1103.
 - A. Belussi, O. Boucelma, B. Catania, Y. Lassoued, P. Podestà, *Towards Similarity-based Topological Query Languages*, Atti di "Query Languages and Query Processing (QLQP2006), EDBT2006 Workshop", Munich, March 30-31, 2006, Springer, pp. 675-686.
 - A. Belussi, C. Combi, S. Migliorini, B. Oliboni, *A geographic, multimedia and temporal data model for semistructured data*, Atti di "2nd International Workshop on Geographic Information Management in conjunction with International Conference on Database and Expert Systems Applications (DEXA-05)", Copenhagen, Denmark, 22-26 August 2005, pp. 463-467.
 - S. Ceresola, A. Fusiello, M. Bicego, A. Belussi, V. Murino, *Automatic updating of urban vector maps*, Atti di "10th International Conference on Image Analysis and Processing (ICIAP 2005)", Cagliari, September 6-8, 2005, pp. 1133-1139.
 - A. Belussi, B. Catania, P. Podestà, *Towards Topological Consistency and Similarity of Multiresolution Geographical Maps*, Atti di "Proceedings of the 13th annual ACM international workshop on Geographic information systems", Bremen, Germany, 4-5 November, 2005, pp. 220-229
 - A. Belussi, R. Posenato, *A Framework for the Internationalization of Data-Intensive Web Applications* in *Web Engineering* a cura di Nora Koch, Piero Fraternali and Martin Wirsing, Springer, Atti di "International Conference on Web Engineering", Monaco, 27-30 July 2004, pp. 478-482.
 - A. Belussi, E. Bertino, B. Catania, M. L. Damiani, A. Nucita, *An Authorization Model for Geographical Maps*, Atti di "12th International Symposium of ACM GIS", Washington D.C. (USA), 12-13 Nov. 2004, pp. 82-91.
 - F. Avanzini, D. Rocchesso, A. Belussi, A. Dal Palù, A. Dovier, *Designing an Urban-Scale Auditory Alert System* «IEEE Computer», vol. 37, n. 9, 2004, pp. 55-61.
 - A. Belussi, M. Negri, G. Pelagatti, *GeoUML: a Geographic Conceptual Model Defined through Specialization of ISO TC 211 Standards*, Atti di "10th EC-GI&GIS Workshop", Warsaw, Poland, 23-25 June 2004.
 - A. Belussi, E. Bertino, A. Nucita, *Grid Based Methods for Estimating Spatial Join Selectivity*, Atti di "12th International Symposium of ACM GIS", Washington D.C. (USA), 12-13 Nov. 2004, pp. 92-100
 - A. Belussi, B. Catania, E. Bertino, *A Reference Framework for Integrating Multiple Representations of Geographical Maps*, Atti di "Eleventh International Symposium of ACM-GIS", New Orleans, Louisiana, USA, 7-8 Novembre 2003, pp. 33-40.
 - A. Belussi, B. Catania, F. Rossi, *GELIS: a System for Layered and Incomplete Representation of Geographical Data*, Atti di "Workshop SPADAGIS, nell'ambito di un Ciclo di giornate AICA di studio del Gruppo di Lavoro Basi di Dati", Milano, Italy, 10 marzo 2003, 2003
 - A. Belussi, E. Bertino, A. Nucita, *Grid Based Methods for the Spatial Join Estimation*, Atti di "11th Italian Symposium on Advanced Database Systems (SEBD 2003)", Cetraro (CS), Italy, June 24-27 2003, pp. 49-60.
 - F. Avanzini, A. Belussi, A. Dal Palù, A. Dovier, D. Rocchesso, *Optimal Placement of Acoustic Sources in a Built-up Area using CLP(FD)*, Atti di "2002 Joint Conference on Declarative Programming (AGP 2002)", Madrid, Spain, 16 - 18 September, 2002

- F. A. Schreiber, A. Belussi, V. De Antonellis, M. G. Fugini, G. Pozzi, L. Tanca, L. Tosi, *The Design of the DEAFIN Web-Geographical Information System: an Experience in the Integration of Territorial Reclamation Support Services Web-Enabled Systems Integration*, 2002, pp. 142-168.
- A. Belussi, E. Bertino, B. Catania, *Using Spatial Data Access Structures for Filtering Nearest Neighbor Queries* «Data & Knowledge Engineering», vol. 40(1), 2002, pp. 1-31
- A. Belussi, M. Negri, G. Pelagatti, F. Spinazza, *An Integrity Constraints Driven System for Updating Spatial Databases*, Atti di "Eighth International Symposium of ACM GIS", Washington D. C. (USA), 10-11 Nov. 2000, pp. 121-128
- A. Belussi, M. Cristani, *Mereological Inheritance* «Spatial Cognition and Computation», vol. 2, 2000, pp. 467-494
- A. Belussi, M. Negri, G. Pelagatti, *Time Component in GIS* «GIM», vol. 13, 1999, pp. 41-43.

Honor and Awards

May 2005

Möbius Multimedia Lugano International Award, Città di Lugano and RSI, Lugano, Switzerland.

As project architect and analyst of the best Italian University Web Site,
<http://www.moebiuslugano.ch>.

Ph.D. supervision

2002-2013

Advisor e co-advisor of three Ph.D. students: Sara Migliorini (University of Verona), Andrea Nucita (University of Milan), Paola Podestà (University of Genova).

from 2006

Member of the Ph.D. committee at University of Verona, Italy

2008

Member of the Ph.D. defense committee in 2008 at University of Genova, Italy

2019

Co-advisor of a Ph.D. student at University of Liege, Belgium

Editorial activities

2000

Member of the program committee of the conference *Sistemi Evoluti per Basi di Dati* (SEBD) 2000.

2004

Member of the program committee of the conference *Extending Database Technology* (EDBT'04) 2004.

2005

Member of the program committee of the conference *9th International Symposium on Spatial and Temporal Databases*, 2005

2010

Member of the program committee of the conference *14th East-European Conference on Advances in Databases and Information*, 2010

2011

Member of the program committee of the conference *15th East-European Conference on Advances in Databases and Information*, 2011

2015

Member of the program committee of the conference *MEDI 2015 (5th International Conference on Conference on Model & Data Engineering)*, 2015

2017

Program Chair of the international workshop: COARCH'17 (1st Workshop On Computing Techniques For Spatio-Temporal Data In Archaeology And Cultural Heritage), L'Aquila, Italy, 4 September 2017

2017

Member of the program committee of the conference COSIT 2017 (13th International Conference on Spatial Information Theory) L'Aquila, Italy, September 4-8 2017

2018

Program Chair of the international workshop: COARCH'17 (2nd Workshop On Computing Techniques For Spatio-Temporal Data In Archaeology And Cultural Heritage), Melbourne, Australia, 28 August 2018

2018

Guest Editor of the Special Issue "Distributed and Parallel Architectures for Spatial Data" in the journal "International Journal of Geo-information"

2019

Member of the program committee of the conference COSIT 2019 (14th International Conference on Spatial Information Theory) Regensburg, Germany, September 9-13, 2019

2019

Member of the program committee of the conference 27th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2019), November 5 - 8, 2019, Chicago, Illinois, USA

2020

Member of the program committee of the conference 28th SYMPOSIUM ON ADVANCED DATABASE SYSTEMS, SEBD'20, June 21-24, 2020 - Villasimius, Sardinia, Italy

2020

Member of the program committee of the conference 28th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2020), Nov 3-6, 2020 - Seattle, Washington, USA

2021

Member of the program committee of the conference 29th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2021), Nov 2-5, 2021 - Beijing, China

2022

Member of the program committee of the conference 30th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2022), Nov 1-4, 2022 - Seattle, Washington, USA

2023

Member of the program committee of the conference 31th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2023), Nov 13-16, 2023 - Hamburg, Germany

2023

Publicity Chair of the conference 31th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2023), Nov 13-16, 2023 – Hamburg, Germany

Since 2019

Member of the editorial board of the international journal: ISPRS International Journal of Geo-Information

Since 2004

Reviewer for the following journals: International Journal of Geographical Information Science, IEEE Transactions on Knowledge and Data Engineering, Data & Knowledge Engineering, ACM Transactions on Database Systems, Geoinformatica, Journal of Geographical Systems.

Since 2004

Reviewer for the following conferences: ADBIS, SSTD, SSD, EDBT, SEBD.

Visits

August 1994- February 1995

University of Maryland College Park, Maryland (U.S.A.), cooperation with Prof. Christos Faloutsos spatial query optimization

February 1995

AT&T Bell Labs - Murray Hill, U.S.A, cooperation with Prof. Christos Faloutsos spatial query optimization

Invited Talks

- Workshop La Geomatica & I Beni Culturali, Padova 18/01/2017, Cortile Antico – Palazzo Bo, Padova, “Il progetto SITAVR. Un Sistema Informativo Territoriale per i beni Archeologici orientato all’interoperabilità”
- *ESDI Workshop on Conceptual Schema Languages and Tools, Joint Research Center (JRC), Ispra, Italy, 13-14 October 2005, 2005*, where he has been invited to participate with the talk: “Mapping the IntesaGIS model to the EuroRoads model - Translation exercise and discussion points about CSLs (Conceptual Schema Languages)”

Talks at international conferences

- 30th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2022), Seattle, WA, USA, November 02, 2022
- 8th ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data, Chicago, IL, USA, November 05, 2019
- 3rd ACM SIGSPATIAL International Workshop on Analytics for Local Events and News, Chicago, IL, USA, November 05, 2019
- 1st International Workshop on Processing Information Ethically (hosted by CAISE '19), 3-7 June, 2019, Rome, Italy
- 10th International Conference on Geographic Information Science 29 August 2018, Melbourne, Australia
- 5th ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data (BigSpatial-2016), October 31, 2016, San Francisco, CA, USA
- 4th ACM SIGSPATIAL International Workshop on Mobile Geographic Information Systems, Seattle, 3 november, 2015
- 43rd Computer Applications and Quantitative Methods in Archaeology, Siena, Italy, 30 march - 3 april, 2015
- Computer Applications and Quantitative Methods in Archaeology (CAA 2014)", Paris, 25 April 2014.
- *21st ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL GIS 2013)*, Orlando, Florida, USA , 5-8 Nov 2013
- *AGILE 2013*, The 16th AGILE International Conference on Geographic Information Science, Integrating 4D, GIS and Cultural Heritage, Leuven, Belgium, 14 May 2013.
- *20th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL GIS 2012)*, 6-8 November 2012.
- *AGILE 2012*, The 15th AGILE International Conference on Geographic Information Science, Avignon, France, 24-27 April 2012.
- *AGILE 2010*, The 13th AGILE Conference, Guimarães, Portugal, 11- 14 May 2010.
- *AGILE 2009*, The 12th AGILE Conference, Hannover, Germany, May 2009.
- *AGILE 2008*, The 11th AGILE Conference, Girona, Spain, 5-8 May 2008
- *25th International Conference on Conceptual Modeling (CoMoGIS workshop)*, Tucson, AZ, USA, 6-9 November 2006.
- *The Seventh International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences (Spatial Accuracy 2006)*, Lisbona, Portogallo, 5-7 July, 2006.
- *ESDI Workshop on Conceptual Schema Languages and Tools, Joint Research Center (JRC), Ispra, Italy, 13-14 October 2005, 2005*, where he has been invited to participate with the talk: “Mapping the IntesaGIS model to the EuroRoads model - Translation exercise and discussion points about CSL (Conceptual Schema Language)”.
- *10th EC-GI&GIS Workshop*, Warsaw, Poland, 23-25 June 2004, 2004
- *11th International Symposium of ACMGIS*, New Orleans, Louisiana, USA, 7-8 November 2003
- *Meeting on Technology for a National GeoDatabase Infrastructure*, Siena, Italy, 4-5 September 2003
- *Workshop SPADAGIS*, Milan, Italy, 10 March 2003
- *8th International Symposium of ACMGIS*, Washington D.C. USA, 10-11 November 2000
- *21st Urban Data Management Symposium (UDMS '99)*, Venezia, Italy, 21-23 April 1999

- 5th International Symposium on Advances in Spatial Databases (SSD '97), Berlin, Germany, 15-18 July 1997
- 4° convegno nazionale: Sistemi Evoluti per Basi di Dati (SEBD '96), San Miniato (Pisa), Italy, 3-5 July 1996
- 21st International Conference On Very Large Databases (VLDB '95), Zürich (Switzerland), September 1995
- 2nd ACM Symposium on Advances in Geographic Information Systems (ACM-GIS '94), Gaithersburg, Maryland, U.S.A., 1-2 December 1994.
- 5th European Conference and Exhibition on Geographical Information Systems (EGIS/MARI '94), Paris (France), March 1994
- 4th European Conference and Exhibition on Geographical Information Systems (EGIS '93), Genova (Italy), March 1993

Education and training

Dates	1996
Title of qualification awarded	Ph.D. in Computer and Automation Engineering
Principal subjects/Occupational skills covered	Thesis Title: "La progettazione logico/fisica della base di dati spaziali di un sistema informativo territoriale" (keywords: spatial databases, logical data models and algebra, optimization of spatial queries, geographical applications).
Name and type of organisation providing education and training	Politecnico di Milano – Dipartimento di Elettronica e Informazione Via Ponzio 34/5 – 20133 Milano (Italy)
Level in national or international classification	ISCED 6
Dates	1992
Title of qualification awarded	Bachelor in Computer Engineering
Principal subjects/Occupational skills covered	Programming, Databases, Operating Systems, Formal Languages, Compilers, Computer networks, Computer Architecture, Software Engineering.
Name and type of organisation providing education and training	Politecnico di Milano – Facoltà di Ingegneria Milano (Italy)
Level in national or international classification	ISCED 5

Personal skills and competences

Mother tongue(s) **Italian**

Other language(s)

Self-assessment

European level ()*

English

Understanding		Speaking				Writing	
		Listening		Reading			
C1	Proficient User	C1	Proficient User	C1	Proficient User	C1	Proficient User

(*) Common European Framework of Reference (CEF) level

Verona, 1 January 2024

Alberto Belussi