

Ludovico Giorgio Aldo Biagi, curriculum vitae

Birthplace and date: Milano, 23 January 1966

Present situation and previous work experiences

Associate professor at Politecnico di Milano. Courses of AY 2022/2023: *Positioning and Location Based Services* and *Geofundamentals* for the Master of Science in Geoinformatics Engineering

From 2022, member of the Steering committee of the ESA_LAB Memorandum of Cooperation between European Space Agency and Politecnico di Milano.

From 2022, member of the Academic Board of the PhD in Science, Technology, and Policy for Sustainable Change of Politecnico di Milano.

From 2019 to 2022, member of the Academic board of the PhD in Infrastructures and Transport of Università degli studi di Roma La Sapienza.

From 2017 to 2022, chair of the Master of Science in Geoinformatics Engineering at Politecnico di Milano.

In 2017, August 2nd habilitation for the position of Full Professor in Geomatics (08/A4)

From 2015, associate professor at Politecnico di Milano, Department of Civil and Environmental Engineering (DICA).

From 2013 to 2016, chair of the Didactic Commission of DICA.

From 2011 to 2013, scientific responsible of the Geomatics Laboratory of the Politecnico di Milano, Como Campus.

From 2005 to 2014, assistant professor at DICA.

From 1997 to 2004, technician at the Politecnico di Milano and technical responsible of Geomatics Laboratory, Como Campus.

PhD in Geophysics, at the Modena University. X° Cycle, Dissertation title: *The Moho depth estimate by collocation*. Degree in physics, magna cum laude, at the Milano University, dissertation title: *Methods of analysis of signals from geodetic satellites*.

Author or coauthor of more than 100 national and international scientific research publications; author or coauthor of 4 national research or academic books.

Google Scholar indexes

Citations: 605, H-index: 12, i10-index: 14

Scopus indexes

Citations: 332, Publications: 42, H-index: 9

Main research activities related to the project proposal, in order of present relevance

Processing of GNSS data, from monitoring to navigation applications. Statistical analysis for geodata. Reference frames and geodetic permanent networks analysis. Mapping problems. Digital Terrain models: acquisition, validation and merging. Gravimetric inversion and Moho estimation.

Participation to Research Projects supported by the Italian Research and University Ministry (MIUR)

2008-2011. In the leading unit of *The new Geodetic Italian Reference Frame: continuous monitoring and applications*; duration 24 months, national coordinator: Prof. F. Sansò.

2006-2008. In the leading unit of *Galileo and the modernized satellite positioning*, duration 24 months, national coordinator Prof. F. Sansò.

2004-2006. In the leading unit of *The satellite positioning services for the e-government*, duration 24 months, national coordinator Prof. F. Sansò.

2002-2004. Participant to *Integrated Inertial Systems for Positioning in Aerial Photogrammetry*, duration 24 months, national coordinator: Prof. R. Galetto.

2000-2002. Participant to *Digital Surveying techniques, GIS and multimedia network for the Architectural and Environmental Heritage*, duration 24 months, national coordinator: Prof. C. Monti.

2000-2002. Participant to *Active deformation at the borders of Adria Region*, duration 24 months, national coordinator: Prof. R. Sabadini.

1998-2000. Participant to *Lithosphere Dynamic: seismology and deformations in active regions of central Italy*, duration 24 months, national coordinator: Prof. R. Sabadini.

Participation to Research Projects supported by Italian and European Space Agency (ASI / ESA)

2022-present. Responsible of Politecnico di Milano-DICA unit of the project *HYPER-5G project, funded by ESA (NAVISP-EL2-114)*.

2004-2010 Participation to the design (2004-2005) and the realization (2007-2010, duration 36 months) of *Landslide monitoring and risk analysis by Earth Observations (MORFEO) ASI project* (in the realization, responsible of WP *GPS Data Processing*), national coordinator: Prof. L. Ubertini.

2004-2008, involved in the ASI *IERS Combination Pilot Project Proposal*, coordinator Dr. G. Bianco in the framework of IERS WG on combination.

1998-2004: junior researcher in several ASI Projects, related to Geophysics, Geodesy and Geomatics.

Participation to other research projects funded by international / national calls

2021-present. Participation to the project *Geoinformatics and Earth Observation for Landslide Monitoring*, funded by the Italian Ministry of Foreign Affairs and International Cooperation.

2019-2022 Responsible of Politecnico di Milano unit of the project *ViaLibera*, duration 24 months, winner of Bando 57, funded by Fondazione Comunità di Milano.

2014-2016. Responsible of DICA unit of project *Maps for easy paths*, duration 24 months, winner of PoliSocial Awards 2014.

2014-2016. Participation to the project *The paths of Via Regina*, duration 27 months, funded by INTERREG Italia-Svizzera 2007-2013.

2010-2013. participation to the project *HELI-DEM (Helvetia-Italy Digital Elevation Model)*, duration 36 months, funded by INTERREG Italia-Svizzera 2007-2013.

2010-2012. Participation to the project *WebCarte (WEB catalogue e archive of the historical cartography and its evolution)*, duration 24 months, funded by Fondazione Provinciale della Comunità Comasca Onlus.

2007. *Working group on GNSS permanent networks*, responsible of WP *Datum e National Zero order network*, duration 12 months, funded by CISIS (National conference of Regional Authorities for Geodatabases).

1998. Participation to the project *Control de deformaciones a escala local y regional con técnicas geodésicas de alta precisión en zonas tectónicamente activas. Aplicación en el sector central de la Cordillera Bética*, 36 months, funded by Programa Sectorial de Promoción General del Conocimiento (Ref. PB97-1267-C03-03DG), coordinator Prof. A. J. Gil.

Participation to international and national research groups

2014- 2017. Member of the Council of the Italian Association of Surveying and Cartography Professors (*Associazione Universitari di Topografia e Cartografia, AUTECE*).

2012- 2016. Secretary of the WG IV-3 (*Geospatial Databases and Location Based Services, Global DEM Interoperability*) of the International Society for Photogrammetry and Remote Sensing.

2010- 2014. Member of the Scientific Committee of Photogrammetry and Surveying Italian Society (*Società Italiana di Fotogrammetria e Topografia*, SIFET).

2009- 2011. Member of the Inter-Commission Study Group 1 - *Theory, Implementation and Quality Assessment of Geodetic Reference Frames* of the International Association of Geodesy.

2000- 2003. Associate Member of the IAG Special Study Group 3.167 (*Regional Land and Marine Geoid Modelling*).

Participation to Editorial Boards

2013-present. Associate Editor of *Applied Geomatics* (ISSN 1866-9298).

2011- 2014. In the Editorial Board of *Bollettino SIFET* (ISSN 1721-971X).

2001-present. In the Editorial Board of *Geomatics Workbooks* (Politecnico di Milano, Geomatics Laboratory at Como Campus, ISSN 1591-092X).

1998- 2002. In the Editorial Board of the *International Geoid Service Bulletin* (Politecnico di Milano, DIIAR, ISSN 1128-3955).

Reviewing for international and national journals

From 2002, *IAG Symposia Volumes*; from 2007, *Annals of Geophysics* and *Natural Hazards and Earth System Sciences*; from 2010, *Applied Geomatics*; from 2011, *Journal of Geodesy*; from 2012, *ISPRS Archives*; from 2015: *Sensors*; from 2023: *Atmosphere*; from 2004, *Bollettino SIFET*.

Participation to international and national symposia

In the past, has participated to the following international symposia (for each participation, at least one oral / poster presentation): Hotine-Marussi Symposia; FOSS4G, ISPRS Congresses; ISPRS TC Symposia and Workshops; Scientific Assemblies of the IAG, International Unions of Geodesy and Geophysics; other IAG Symposia; EGU General Assemblies; EUREF Symposia; ION GNSS, GRASS Users Conferences. At the national level, from 1998 to 2010 regularly participates and presents at the National ASITA conferences; from 2010 regularly participates and presents at the National SIFET conferences.

Main technological transfer contracts

From 2013 to 2016, Responsible of a Consultancy Contract of Politecnico di Milano, Como Campus to CISIS (Centro Interregionale per i Sistemi Informatici, Geografici e Statistici) for the study and the implementation of FOS software for data quality check of permanent networks.

Previously. Responsible of Consultancy Contracts relevant to the design, realization, startup and monitoring of GNSS Positioning Services.

Teaching

In the last 6 years, professor of: *Positioning and Location Based Services* (10 CFU, English language) and *Geofundamentals: geomatic part* (5 CFU, English language) for the International Master of Science in Geoinformatics Engineering at Politecnico di Milano.

Previously, professor of the following courses: *Remote sensing, Satellite Navigation and Monitoring, Geodetic Monitoring, Deformation Monitoring Laboratory, Positioning and Surveying, Numerical Cartography, Statistical data analysis*.

Supervision of 4 PhD theses. Supervision of more than 25 master and 20 bachelor theses