

*Curriculum Vitae*  
**GIANNI BALESTRO**

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## **ACADEMIC TRAINING**

- 1993 Degree in Geological Sciences, University of Torino.
- 2006 Ph.D. in Earth Sciences, University of Torino.

## **ACADEMIC AND PROFESSIONAL HISTORY**

- 1995-2001 Consultant geologist of the Department of Earth Sciences (University of Torino).
- 2001-2003 Consultant geologist of the Institute of Geosciences and Earth Resources (Italian National Research Council).
- 2003-2005 Research fellow, Institute of Geosciences and Earth Resources (Italian National Research Council).
- 2005-2007 Researcher, Institute of Geosciences and Earth Resources (Italian National Research Council).
- 2007-Pres. Researcher, Department of Earth Sciences (University of Torino) and Assistant Professor in the Degree of Geological Sciences (University of Torino).
- 2017-Pres National Scientific Qualification (Idoneity) as Associate Professorship in Structural Geology

## **RESEARCH INTERESTS**

The main research subjects are in the field of Tectonics and Structural Geology.

### ***Geodynamics of collisional belts***

Researches about the tectonic evolution of the Alps through the characterization of structures which drove the subduction and exhumation of continental crust and oceanic lithosphere units, with the definition of syn-metamorphic to present-day geodynamics of the belt.

### ***Tectonostratigraphy***

Studying of oceanic and continental units exposed in the Western Alps. Interpretation of the pre-Alpine tectonostratigraphy by comparison with modern oceanic spreading ridges and rifted margins, and by definition of the role of inherited structures.

### **Geological mapping**

Geological mapping in the Alpine-Apennine orogenic system. Realization of geological maps and related GIS databases, useful for advanced IT-based sharing of structural and geological data.

## **PARTICIPATION IN FUNDED PROGRAMS**

- 2002-2007 “*Geodynamics and evolution of continental lithosphere*”, Department of Earth and Environment (Italian National Research Council).
- 2003-2007 “*Exhumation, recent tectonic, fluid circulation and seismicity in the Alps*”, University of Torino.
- 2006-2007 “*IDE UNIVERS (Infrastructures de Données Spatiales entre Universités et Centres de Recherche dans la Méditerranée Occidentale)*”. Interreg IIIB Medocc., Institute for Electromagnetic Sensing of the Environment (Italian National Research Council).
- 2007-2010 “*GIIDA (Integrated and Interoperable Management of CNR Environmental Data)*”, Department of Earth and Environment (Italian National Research Council).
- 2008-2010 “*Tectonic evolution, exhumation processes and seismicity in the Western Alps*”, University of Torino.
- 2001-2010 “*National Geological Mapping program at 1:50,000 scale*”, Institute of Geosciences and Earth Resources (Italian National Research Council).
- 2012-2014 “*Evolution of a convergent margin at different structural levels: examples from the Western Alps and Northern Apennine*”. University of Torino.
- 2012-2015 “*PROGEOPIemonte (PROactive management of GEOlogical heritage in the Piemonte region)*”. University of Torino - San Paolo Foundation.
- 2014-2015 “*Structural architecture of convergent margins: case histories from the Western Alps and Northern Apennine*”. University of Torino.
- 2013-2016 “*Subduction and exhumation of continental lithosphere: implications on orogenic architecture, environment and climate*”. Ministry of Education, Universities and Research, 2010-2011 PRIN research program, Italy.
- 2015-2017 “*Geodynamic of the Western Alps-Northern Apennine orogenic system: structural constraints in the evolution of an exhumed convergent margin*”. University of Torino.
- 2016-2017 “*Evidences and role of inherited structures in the tectonic evolution of a exhumed convergent margin (Western Alps-Northern Apennine)*”. University of Torino.
- 2016-2019 “*The subduction and exhumation of the continental lithosphere: their effects on the structure and evolution of the orogens*”. Ministry of Education, Universities and Research, 2015 PRIN research program, Italy.
- 2017-2018 “*Geodynamic of an exhumed convergent margin (Western Alps-Northern Apennine) and role of inherited structures*”. University of Torino.
- 2017-2019 “*Tectonic evolution of a convergent margin: examples from the Western Alps-Northern Apennine system*”. University of Torino.
- 2018-pres. “*Geodynamic of the Western Alps-Northern Apennine system and role of the orogenic mélanges*”. University of Torino.
- 2018-pres. Responsible for FFABR2017 (Funding for Basic Activities Related to Research). Ministry of Education, Universities and Research, Italy.

## **SCIENTIFIC AWARDS**

- 2016 EPISODES Best Paper Award 2012-2016 for “Pre-Alpine Extensional Tectonics of a Peridotite-localized Oceanic Core Complex in Late Jurassic, High-Pressure Monviso Ophiolite (Western Alps)” – Episodes, vol. 38 (4), 266-282.
- 2017 LITHOSPHERE Volume cover of the Issue 9(3), 2017 for “*Record of Jurassic mass transport processes through the orogenic cycle: understanding chaotic rock units in the high-pressure Zermatt-Saas ophiolite (W-Alps).*” – Lithosphere, vol. 9 (3), 399-407.

## REVIEWS and ORGANIZATION ACTIVITIES

Scientific reviewer for Journal of Maps, Episodes and Gondwana Research.  
Reviewer for research projects submitted to the Italo-Francese University.

- 2009 Scientific draft of the "Sheet 155 - Torino Ovest" of the Geological Map of Italy at 1:50.000 scale.
- 2002 81th Congress of the Italian Geological Society (Torino, Italy, 06-09 September 2012), Field leader of the pre-conference excursion “*The Alpine-Apennine system in the Cenozoic*”.
- 2002 81th Congress of the Italian Geological Society (Torino, Italy, 13-14 September 2012), Field leader of the post-conference excursion “*Exhumation of subducted continental crust and oceanic lithosphere*”.
- 2011 8th Italian Forum of Earth Sciences (Torino, Italy, 19-23 September 2011), Convener of the session “*Geosciences and Information Technologies*”.
- 2012 7<sup>th</sup> annual meeting of the Geosciences and Information Technologies group of the Italian Geological Society (Bologna, Italy, 13-15 June 2012), Member of the organizing committee.
- 2012-2016 Member of the coordination committee of the Geosciences and Information Technologies group of the Italian Geological Society.
- 2012 86th Congress of the Italian Geological Society (Arcavacata di Rende, Cosenza, Italy, 18-20 September 2012), Convener of the session “*How collecting and making actually usable geological data*”.
- 2013 10th Eclogite Conference (Courmayer, Aosta, Italy, 2-10 September 2013), Field leader of the post-conference excursion “*The Monviso meta-ophiolite Complex: HP metamorphism of oceanic crust & interactions with ultramafics*”.

## TEACHING

### Courses taught

(Earth Sciences first cycle Degree and Applied Earth Sciences second cycle Degree, University of Torino):

- 2008-Pres. Geological Mapping II  
2009 Geological Mapping I  
2010 Structural analysis and Information Technologies  
2013 Laboratory of Geomatics and Geographic Information Systems  
2016-pres. Alpine Geology

**Supervisor** of n. 23 Degree theses, and n. 1 PhD thesis.

## **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

Italian Geological Society (SGI)  
The Italian Group for Structural Geology (GIGS)  
Working Group on Mediterranean Ophiolites (GLOM)  
Geosciences and Information Technologies group (GIT)

## **RECENT PUBLICATIONS**

*A full list of my publications can be found by Author searching in the open access repository of the University of Torino (<https://iris.unito.it/>) or in the Scopus database (<https://www.scopus.com/home.uri>)*

- 1) **Balestro G.**, Festa A., Borghi A., Castelli D., Gattiglio M. (2018). Role of late Jurassic intra-oceanic structural inheritance in the alpine tectonic evolution of the Monviso meta-ophiolite complex (western Alps). *Geological Magazine* 155 (2), 233–249.
- 2) Tartarotti P., Festa A., Benciolini L. & **Balestro G.** (2017) - *Record of Jurassic mass transport processes through the orogenic cycle: Understanding chaotic rock units in the high-pressure Zermatt-Saas ophiolite (Western Alps)*. *Lithosphere*, 9(3), 399-407
- 3) Cadoppi P, Camanni G., Balestro G. & Perrone G. (2016) – Geology of the Fontane talc mineralization (Germanasca valley, Italian Western Alps). *Journal of Maps*, DOI: 10.1080/17445647.2016.1142480
- 4) **Balestro G.**, Cassulo R., Festa A., Fioraso G., Giardino M., Nicolò G. & Perotti L. (2016) – *3D Geological visualizations of geoheritage information in the Monviso Massif (Western Alps)*. *RendicontiOnline della Società Geologica Italiana*, 39, 81-84.
- 5) **Balestro G.**, Festa A., Dilek Y & Tartarotti P. (2015) – Pre-Alpine extensional tectonics of a peridotite-localized oceanic core complex in the Late Jurassic, high-pressure Monviso ophiolite (Western Alps). *Episodes*, 38(4), 266-282,
- 6) Festa A., **Balestro G.**, Dilek Y & Tartarotti P. (2015) - *A Jurassic oceanic core complex in the high-pressure Monviso ophiolite (western Alps, NW Italy)*. *Lithosphere*, 7(6), 646-652, doi: 10.1130/L458.1
- 7) Festa A., **Balestro G.** & Tartarotti P. (2015) - *Tectonic significance of different block-in-matrix structures in exhumed convergent plate margins: examples from oceanic and continental HP rocks in Inner Western Alps (NW Italy)*. *International geology Review*, 57 (5-8), 581-605, doi: 10.1080/00206814.2014.943307.
- 8) Tartarotti P., Festa A., Benciolini L. & **Balestro G.** (2015) - *Fossil mantle-sediments interface recognized in the Western Alps metaophiolites: a key to unravel the accretion mechanism of the Jurassic Tethys ocean*. *RendicontiOnline della Società Geologica Italiana*, 37, 68-71.
- 9) Rolfo F., Benna P, Cadoppi P., Castelli D., Favero-Longo S.E., Giardino M., **Balestro G.**, Belluso E., Borghi A, Cámara F., Compagnoni R., Ferrando S., Festa A., Forno M.G.,

Giacometti F., Gianotti F., Groppo C., Lombardo B., Mosca P., Perrone G., Piervittori R., Rebay G. & Rossetti P. (2015) - *The Monviso Massif and the Cottian Alps as symbols of the Alpine chain and geological heritage in Piemonte, Italy*. *Geoheritage*, 7, 65-84.

- 10) **Balestro G.**, Cassulo R., Fioraso G., Nicolò G., Rolfo F., Bonansea E., Cadoppi P., Castelli D., Ferrando S., Festa A., Groppo C., Morelli M., Mortara G. & Mosca P. (2015) - *IT applications for sharing geoheritage information: the example of the geological and geomorphological trail in the Monviso massif (NW Italy)*. *RendicontiOnline della Società Geologica Italiana*, 34, 85-88.
- 11) **Balestro G.**, Lombardo B., Vaggelli G., Borghi A., Festa A., Gattiglio M. (2014). *Tectonostratigraphy of the northern Monviso Meta-ophiolite Complex (Western Alps)*. *Italian Journal of Geosciences*, 133, 409-426, doi: 10.3301/IJG.2014.13
- 12) Castelli D., Compagnoni R., Lombardo B., Angiboust S., **Balestro G.**, Ferrando S., Groppo, C., Hirajima T., Rolfo F. (2014). *Crust-mantle interactions during subduction of oceanic & continental crust*. 10th International Eclogite Conference, Courmayeur (Aosta, Italy) - Post-conference excursions: September 9-10, 2013, *Geological Field Trips*, 6(1.3), 1-73, doi: 10.3301/GFT.2014.03
- 13) Rolfo F., **Balestro G.**, Borghi A., Castelli D., Ferrando S., Groppo C., Mosca P. & Rossetti P. (2014) - *The Monviso Ophiolite Geopark, a Symbol of the Alpine Chain and Geological Heritage in Piemonte, Italy*. G. Lollino et al. (eds.), *Engineering Geology for Society and Territory*, 8, 239-243, DOI: 10.1007/978-3-319-09408-3-40.
- 14) **Balestro G.**, Fioraso G. & Lombardo B. (2013) - *Geological map of the Monviso massif (Western Alps)*. *Journal of Maps*, 6, 4, 623-624, doi: 10.1080/17445647.2013.842507
- 15) Perrone G., Morelli M., Piana F., Fioraso G., Nicolò G., Mallen L., Cadoppi P., **Balestro G.** & Tallone S. (2013) - *Current tectonic activity and differential uplift along the Cottian Alps/Po Plain boundary (NW Italy) as derived by PS-InSAR data*. *Journal of Geodynamics*, 66, 65-78.
- 16) **Balestro G.**, Piana F., Fioraso G., Perrone G. & Tallone S. (2013) - *Sharing data and interpretations of geological maps via standardised metadata and geoportals*. *Italian Journal of Geosciences*, 132 (2), 254-262, doi: 10.3301/IJG.2012.35
- 17) **Balestro G.**, Festa A., Ghignone S., Costanza M., Scaramuzzo E. & Tartarotti P. (2013) – *Different types of HP mélangé and broken formation in the northern Monviso Meta-ophiolite Complex (inner Western Alps, NW Italy)*. *RendicontiOnline della Società Geologica Italiana*, 29, 1-4.
- 18) Perrone G., Morelli M., Fioraso G., Piana F., Cadoppi P., **Balestro G.**, Tallone S., Mallen L. & Nicolò G. (2012) – *Current tectonic activity and differential uplift along the inner central Western Alps/Po Plain boundary as derived by PS-InSAR data*. *RendicontiOnline della Società Geologica Italiana*, 22, 180-182.
- 19) **Balestro G.**, Piana F., Fioraso G., Perrone G. & Tallone S. (2012) – *Sharing data and interpretation of geological maps on the web: the example of the CNR-IGGTO geoportal*. *RendicontiOnline della Società Geologica Italiana*, 21, 714-715.

- 20) **Balestro G.**, Ghiraldi L., Giardino M. & Perotti L. (2012) – *GIS applications for assessing and sharing geoheritage information in the Piemonte region (NW Italy)*. RendicontiOnline della Società Geologica Italiana, 19, 55-57.
- 21) **Balestro G.**, Fioraso G. & Lombardo B. (2011) - *Geological map of the upper Pellice Valley (Italian Western Alps)*. Journal of Maps, v2011, 634-654. doi: 10.4113/jom.2011.1213.
- 22) Perrone G., Cadoppi P., Tallone S. & **Balestro G.** (2011) - *Post-collisional tectonics in the Northern Cottian Alps (Italian Western Alps)*. International Journal of Earth Sciences, 100, 1349-1373, doi: 10.1007/s00531-010-0534-1

**Author and co-author of more than 50 abstracts and presentations in international and national meeting.**

08/02/2019

Prof. Gianni Balestro