

Short Curriculum Vitae (update June 2018)

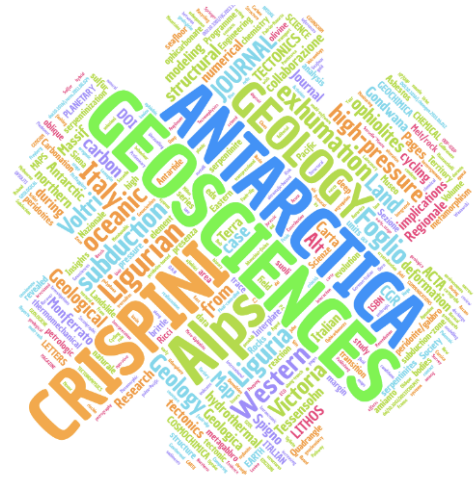
LAURA CRISPINI

Personal:

Born in Genova (Italy) May 02, 1966.

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https://www.researchgate.net/profile/Laura_Crispini



CURRENT POSITION

- ASSOCIATE PROFESSOR in STRUCTURAL GEOLOGY and TECTONICS at the University of Genova, Italy (since 2011).
- 2013 National Scientific Qualification as Full Professor in Structural geology, Stratigraphy, Sedimentology.

PREVIOUS ACADEMIC POSITIONS

- 1999-2010 ASSISTANT PROFESSOR in Structural Geology at University of Genova, Italy.
- 1996 -1999 POST-DOCTORAL RESEARCH FELLOW in Structural Geology for Antarctic researches, University of Genova, Italy.
- 1995-1996 Associated Researcher and Teaching assistant, University of Genova , Italy
- 1995 - Associated researcher for fluid inclusions study at CREGU di Nancy (France) CEE Human Capital and Mobility project (N. CT930198)
- LC got the Ph.D. in Structural Geology and Tectonics in 1995 in Italy (at the PhD School of Genova-Torino-Cagliari Universities).
- 1992-1994 PhD student

SCIENTIFIC INTEREST

- ERC Sectors: PE_10: PE10_5,PE10_7, PE10_10,PE10_11,PE10_12, PE10_15
- LC scientific interests are on: Structural geology, Tectonics and geodynamics, petrology and Geological mapping.

Main topics:

- Geodynamics of Gondwana and Transantarctic Mountains, Antarctica
- Evolution of orogeny: deformation and metamorphism, exhumation of high-pressure rocks and kinematic trajectories, late-orogenic tectonics
- Melanges and subduction channels
- Ophiolite and Oceanic sequences
- Structures and microstructures of deformed rocks in high strain zones, relation to EQ dynamics. Shear zones and fluid-rock interaction
- Connection between geology and geophysics.
- Dynamics of Intraoceanic subduction zones and digital modeling.

Principal Field sites: Western Alps, Ligurian Alps, Corsica, northern Apennine, Antarctica, Oman and the Ocean East Pacific Ridge.

SCIENTIFIC ACTIVITY

LC scientific activity is testified by more than 332 scientific publications; 80 articles on Scientific journals, among these 53 are on ISI Journals, 47 geological maps, more than 180 abstracts of presentations at national and international meetings.

SCOPUS database: 72 cited papers, H-index 20, 1221 citations; ISIWOS: 53 cited papers, H-index 18, 1069 citations; Google Scholar database: H-index 21, 1535 citations.

SCIENTIFIC EXPEDITIONS

ANTARCTICA

- Field Geologist and structural geologist in n. 4 Scientific Expedition in Antarctica with Remote Field Camps within the MIUR-PNRA Italian program:
PNRA_Italianantartide XII (1996-97),
PNRA_Italianantartide XIX (2003-04);
PNRA_Italianantartide XXI (2005-06);
PNRA_Italianantartide XXX (2014-15)
- Invited Field Scientist in the Scientific Expedition in Antarctica GANOVEX XI (2015-16) for the Federal Institute for Geosciences and Natural Resources - BGR (Hannover-Germania)
- Field-leader in the Scientific Expedition in Antarctica GANOVEX XII-REGGAE PNRA (2016-17) progetto congiunto BGR (D)-PNRA (I)-BAS (UK)

OCEANIC DRILLING ODP-IODP

- Shipboard Scientist-Structural Geologist in IODP-Exp 309 " Superfast Spreading Rate Crust 2-site 1256" (2005)
- Shipboard Scientist (Structural Geologist) in ODP (Ocean Drilling Program) - LEG 206 " An In Situ Section of Upper Oceanic Crust Formed by Superfast Seafloor Spreading- Site 1256 " (2002-03)

CONTINENTAL DRILLING ICDP-OMAN

- Leader del "Structural Geology Team" in "ICDP-Oman Drilling Project", LEG Phase 1. Core logging sulla nave Chikyu (Japan 2017)
- Scientist of the Science Team in LEG Phase 2 "ICDP-Oman Drilling Project" (Oman, 2018)
- Leader del "Structural Geology Team" of "ICDP-Oman Drilling Project", LEG Phase 2. Core logging on Chikyu (Japan 2018)

RESEARCH EXPERIENCES:

- LC worked in the GIGAMAP project, an international program of field mapping in northern Victoria Land, and in various projects on the Structural Evolution of the Transantarctic Mountains and Geodynamics of Gondwana funded by PNRA (Programma Nazionale Ricerca in Antartide) (1996 to Present).
- Scientist in the ODP-IODP projects on the geology at Superfast Spreading Ridge and she joined 2 Scientific Expeditions in the Pacific Ocean (site 1256) as petrologist and structural geologist (onboard ODP LEG 206 and IODP Exp 309) on the Joides Resolution vessel.
- Participant and Leader of the Structural team in the Oman-ICDP Phase 1 shipboard science party and Oman-ICDP Phase 2 shipboard science party (2017-2018).
Participant in Oman-ICDP Phase 2 drilling in Oman (Jan 2018)
- LC works and has been working in the Italian western Alps for field mapping and tectonics. In 2002-2004 and 2012-2015 she has been the Field Manager of various geological sheets for the Italian and Regional Geological Survey Geological mapping Project.
- partner of the "Marie-Curie Initial Training Network" entitled: "ABYSS". She is Co-supervisor of a PhD in the WP3 (Dynamic melt-rock interactions: building the oceanic lithosphere) and coordinator of the WP7 (Dissemination and Exploitation) 2014-2017 .
- Associated researcher for the P.N.R.A., the Italian Antarctic Program in Structural geology and metamorphic petrology 1994
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SCIENTIFIC AFFILIATIONS

Member of:

- SCAR-GeoMAP Geosciences active Group
- SCAR-CCG Geosciences active Group
- SCAR- ADMAP Geosciences expert Group
- IGCP 648-Supercontinent Cycles & Global Geodynamics
- IGCP-628 - The Gondwana Map Project
- Società Geologica Italiana (SGI);
- Section of SGI Structural Geology GIGS (SGI)
- Section of SGI GEological Mapping(SGI)
- Ocean Drilling Program (ODP), IODP (Integrated Ocean Drilling Program) e ICDP;
- Interuniversity Center of Earth Sciences for IODP (Integrated Ocean Drilling Program) Italia

TEACHING, MENTORING AND TRAINING

- LC has been teaching at University of Genova since 1991. Since 1999 her classes include: Field geology and mapping (including interpretation of geological maps and cross sections), Structural Geology, Microtectonics, Application of Structural Geology both for B.Sc. level and MSc. level and Classes for the PhD School of Earth Sciences.
- LC has been Advisor (or co-advisor) for 6 PhD students and more than 60 MSc theses and BSc theses.
 - At present LC is Co-advisor of 1 PhD student and one Post-doc fellow, Italian "Assegnista di Ricerca". She has been Co-supervisor and coordinator of WP7 (Dissemination and Exploitation) in ESR2 (Early Stage Researchers) Marie-Curie Initial Training Network entitled: ABYSS.
 - LC is active in dissemination and outreach activity organising Seminars and Laboratory for Public, Museums and Schools.

INSTITUTIONAL ACADEMIC ACTIVITY

- At present is member of the:
- Scientific Committee of the Department DISTAV University of Genova
 - Teaching Committee of the School of Earth Sciences (University of Genova)
 - Committee of Academic Quality of the Master School of Earth Sciences (Univ. Genova)
 - PhD Board of the STAT PhD School "Science And Technology for the Environment and Territory" (University of Genova)

PUBLICATIONS SINCE 2010

- 1) Federico L., **CRISPINI L.** and Capponi G. - 2010- Fault-slip analysis and transpressional tectonics: a study of Paleozoic structures in northern Victoria Land, Antarctica. **Journal Of Structural Geology**, 32-5, 667-684 ISSN: 0191-8141, doi: 10.1016/j.jsg.2010.04.001
- 2) Panseri M., Tartarotti P., and **CRISPINI L.** - 2010 - Felsic segregation during crystallization of a subaqueous lava field (ODP-IODP Site 1256, East Pacific Rise): inferences from structure and petrography. **Journal of Volcanology and Geothermal Research**. V. 196, Issues 1-2, Pages 31-44
- 3) **CRISPINI L.**, Federico L., Capponi G. and Talarico F.M. - 2011- The Dorn gold deposit in northern Victoria Land, Antarctica: structure, hydrothermal alteration, and implications for the Gondwana Pacific margin. **Gondwana Research**, vol. 19, p. 128-140 ISSN: 1342-937X, doi: 10.1016/j.gr.2010.03.010
- 4) Malatesta C., **CRISPINI L.**, Federico L., Scambelluri M., Capponi G. - 2012 - The exhumation of high pressure ophiolites (Voltri Massif, Western Alps): Insights from structural and petrologic data on metagabbro bodies. **Tectonophysics**, vol. 568-569, 102-123 [doi:10.1016/j.tecto.2011.08.024](https://doi.org/10.1016/j.tecto.2011.08.024)
- 5) Malatesta C., **CRISPINI L.**, Federico L., Capponi G. & Scambelluri M. - 2012 - The exhumation of high pressure ophiolites (Voltri Massif, Western Alps): Insights from structural and petrologic data on metagabbro bodies. **TECTONOPHYSICS**, 568/569, 102 - 123, DOI:

10.1016/j.tecto.2011.08.02

- 6) Malatesta C., Gerya T., Scambelluri M., Federico L., **CRISPINI L.** & Capponi G. - 2012 - Intraoceanic subduction of “heterogeneous” oceanic lithosphere in narrow basins: 2D numerical modeling. **LITHOS**, 140, 234 - 251. 10.1016/j.lithos.2012.01.003
- 7) Alt J.C., Shanks III W.C., **CRISPINI L.**, Gaggero L., Schwarzenbach E.M., Früh-Green G.L., Bernasconi S.M. - 2012 - Uptake of carbon and sulfur during seafloor serpentinization and the effects of subduction metamorphism in Ligurian peridotites. **CHEMICAL GEOLOGY**, vol. 322-323, 268 - 277, ISSN: 0009-2541, doi: 10.1016/j.chemgeo.2012.07.009
- 8) Schwarzenbach E, Früh-Green G.L. Bernasconi S.M., Alt J.C, Shanks III W.C., Gaggero L., **CRISPINI L.** - 2012 - Sulfur geochemistry of peridotite-hosted hydrothermal systems: Comparing the Ligurian ophiolites with oceanic serpentinites. **GEOCHIM. COSMOCHIM. ACTA**, 91, 283–305, 0.1016/j.gca.2012.05.021.
- 9) Malatesta C., Gerya T., **CRISPINI L.**, Federico L., Capponi G. - 2013 - Oblique subduction modelling indicates along-trench tectonic transport of sediments. **NATURE COMMUNICATIONS**, 4, 1 - 6, ISSN: 2041-1723, doi: 10.1038/ncomms3456
- 10) Gaggero L., **CRISPINI L.**, Isola E. & Marescotti P. - 2013 - Asbestos in natural and anthropic ophiolitic environments: a case study of geohazards related to the Northern Apennine ophiolites (Eastern Liguria, Italy). **OFIOLITI**, 38, 29 - 40, ISSN: 0391-2612, doi: 10.4454/ofioliti.v.38i1.414
- 11) Alt, J.C., Schwarzenbach, E.M., Früh-Green, G.L., Shanks, W.C., Bernasconi, S.M., Garrido, C.J., **CRISPINI L.**, Gaggero, L., Padrón-Navarta, J.A., Marchesi, C. - 2013 - The role of serpentinites in cycling of carbon and sulfur: Seafloor serpentinization and subduction metamorphism, **LITHOS**, 178, 40-54. DOI: 10.1016/j.lithos.2012.12.006
- 12) Marco Balini, Hugo Bucher, Angelo Camerlenghi, William Cavazza, Raffaello Cioni, Simonetta Cirilli, Laura **CRISPINI** , Sandro Conticelli, Giovanni Crosta, Claudio Faccenna, Maurizio Mazzucchelli, Giulio Ottonello: - 2014- Editorial: The Italian Journal of Geosciences is increasing its appeal among Geoscientists. **ITALIAN JOURNAL OF GEOSCIENCES** 02/2014; 133(1):3-4. DOI:10.3301/IJG.2013.23
- 13) **CRISPINI L.**, Federico L. & Capponi G. - 2014 - Structure of the Millen Schist Belt (Antarctica): Clues for the tectonics of northern Victoria Land along the paleo-Pacific margin of Gondwana. **TECTONICS**, 33 (4), 420 - 440, doi/10.1002/2013TC003414
- 14) Federico L., **CRISPINI L.**, Malatesta C. Torchio S. & Capponi G. - 2014 - Geology of the Pontinvrea area (Ligurian Alps, Italy): structural setting of the contact between Montenotte and Voltri units. **JOURNAL OF MAPS °**, 11(1), 2015, pages 101-113, DOI: 10.1080/17445647.2014.945749
- 15) Federico L., **CRISPINI L.**, Vigo A. & Capponi G. -2014 - Unravelling polyphase brittle tectonics through multi-software fault-slip analysis: The case of the Voltri Unit, Western Alps (Italy). **JOURNAL OF STRUCT. GEOL**, 68, 175 - 193. DOI: 10.1016/j.jsg.2014.09.011
- 16) Faccini F., **CRISPINI L.**, Federico L., Robbiano A., Roccati A. (2014). New Interpretation of Lemeglio Coastal Landslide (Liguria, Italy) Based on Field Survey and Integrated Monitoring Activities. In: Lollino, G., Giordan, D., Crosta, G., Corominas, J., Azzam, R., Wasowski, J., Sciarra, N. (Eds.). **Engineering Geology for Society and Territory**. vol. 2 -Landslide Processes, p. 227-231, Springer International Publishing, ISBN: 9783319090566, doi: 10.1007/978-3-319-09057-3_32
- 17) P. Marescotti, M. Solimano, G. Beccaris, E. Scotti, L. **CRISPINI**, E. Poggi, M. Brancucci, S. Fornasaro (2014). La presenza naturale di metalli nei suoli: criticità operative e possibili soluzioni. **ECO**, vol. 29, p. 60-63 DEA EDIZIONI - Torino. ISSN: 0394-5391
- 18) Federico L., **CRISPINI L.**, Dabove G., Piazza M., & Capponi G. - 2015 - Stratigraphic vs structural contacts in a late orogenic basin: the case of the Tertiary Piedmont Basin in the Sassello area (Ligurian Alps, Italy). **JOURNAL OF MAPS°**. DOI: 10.1080/17445647.2015.1100561
- 19) N. C. Collins, G.E. Bebout, S. Angiboust, P. Agard, M. Scambelluri, L. **CRISPINI**, T. John: - 2015 - Subduction Zone Metamorphic Pathway for Deep Carbon Cycling: II. Evidence from

- HP/UHP Metabasaltic Rocks and Ophicarbonates. **CHEMICAL GEOLOGY** 07/2015; DOI:10.1016/j.chemgeo.2015.06.012
- 20) Capponi G., **CRISPINI** L., Federico L. & Malatesta G. - 2015 - Geology of the Eastern Ligurian Alps: a review of the tectonic units. **ITALIAN JOURNAL OF GEOSCIENCES**, DOI: 10.3301/IJG.2015.06
- 21) Marescotti P., **CRISPINI** L., Poggi E., Capponi G. & Solimano M. - 2015 - The Asbestos Risk in Meta-Ophiolitic Rocks: A Protocol for Preliminary Field and Laboratory Investigations During Geological Mapping. In: Lollino G. et al. (eds.), **Engineering Geology for Society and Territory**, 5, 623 - 626. DOI: 10.1007/978-3-319-09048-1_121
- 22) Marescotti P., **CRISPINI** L., Capponi G., Fornasaro S., Beccaris G., Scotti E. - 2016. La presenza naturale di amianto nelle rocce e nei suoli ofiolitici: il censimento dei siti a rischio amianto durante la realizzazione della cartografia geologica della Regione Liguria. **Recover Recycling Remediation Demolition**, vol. 37: 83-85. ISSN: 2421-2938
- 23) M. Scambelluri, G. E Bebout, D. Belmonte, M. Gilio, N. Campomenosi, N. Collins, L. **CRISPINI** - 2016 -Carbonation of subduction-zone serpentinite (high-pressure ophicarbonate; Ligurian Western Alps) and implications for the deep carbon cycling **EARTH AND PLANETARY SCIENCE LETTERS** Volume: 441 Pages: 155-166
- 24) E Rampone, G Borghini, M Godard, B Ildefonse, L **CRISPINI**, P Fumagalli - 2016 - Melt/rock reaction at oceanic peridotite/gabbro transition as revealed by trace element chemistry of olivine **GEOCHIMICA ET COSMOCHIMICA ACTA** 190, 309-331
- 25) C Malatesta, T Gerya, L **CRISPINI**, L Federico, G Capponi 2016 Interplate deformation at early stage oblique subduction: 3D thermomechanical numerical modeling **TECTONICS** 35 (7), 1610-1625
- 26) M. Scambelluri, G. E Bebout, D. Belmonte, M. Gilio, N. Campomenosi, N. Collins, L. **CRISPINI** - 2016 -Carbonation of subduction-zone serpentinite (high-pressure ophicarbonate; Ligurian Western Alps) and implications for the deep carbon cycling. **EARTH AND PLANETARY SCIENCE LETTERS** Volume: 441 Pages: 155-166
- 27) E Rampone, G Borghini, M Godard, B Ildefonse, L **CRISPINI**, P Fumagalli - 2016 - Melt/rock reaction at oceanic peridotite/gabbro transition as revealed by trace element chemistry of olivine **GEOCHIMICA ET COSMOCHIMICA ACTA** 190, 309-331
- 28) C Malatesta, T Gerya, L **CRISPINI**, L Federico, G Capponi - 2016 - Interplate deformation at early stage oblique subduction: 3_D thermomechanical numerical modeling **TECTONICS** 35 (7), 1610-1625
- 29) C Malatesta, L Federico, L **CRISPINI**, G Capponi- 2017 Fluid-controlled deformation in blueschist-facies conditions: plastic vs brittle behaviour in a brecciated mylonite (Voltri Massif, Western Alps, Italy) **GEOLOGICAL MAGAZINE** DOI: 10.1017/S0016756816001163
- 30) V. Basch, E Rampone, L **CRISPINI**, C. Ferrando, B. Ildefonse, M. Godard - 2018- From mantle peridotites to hybrid troctolites: textural and chemical evolution during melt-rock interaction history (Mt.Maggiore, Corsica, France). **LITHOS**, p. 1-30, ISSN: 0024-4937, doi: 10.1016/j.lithos.2018.02.025
- 31) J.C. Alt, **CRISPINI**, L. Gaggero, D. Levine, G. Lavagnino, P. Shanks, C. Gulbransen - 2018- Normal faulting and evolution of fluid discharge in a Jurassic seafloor ultramafic-hosted hydrothermal system. **GEOLOGY**, p. 1-4, ISSN: 0091-7613, doi: 10.1130/G40287.1
- GEOLOGICAL MAPS SINCE 2010**
- Capponi G., **CRISPINI** L., Piazza M., con la collaborazione di, Dabove G., Faccini F., Federico L., Ferraris F., Firpo M., Poggi E., Roccati A., Torchio S., Vigo A. (2013). Foglio 212.2 "Urbe", Carta Geologica Regionale (CGR) sc. 1:25000 riferita al Foglio 212 Spigno Monferrato - sc. 1:50000, Regione Liguria.
 - Capponi G., **CRISPINI** L., Piazza M., con la collaborazione di, Dabove G., Faccini F., Federico L., Ferraris F., Firpo M., Poggi E., Roccati A., Torchio S., Vigo A. (2013). Foglio 212.3 "Sassello""Monte Acuto" e , Carta Geologica Regionale (CGR) sc. 1:25000 riferita al Foglio 212 Spigno Monferrato - sc. 1:50000, Regione Liguria. Capponi G., **CRISPINI** L., Piazza M., (con la collaborazione di, Dabove G., Faccini F., Federico L., Ferraris F., Firpo

- M., Poggi E., Roccati A., Torchio S., Vigo A) (2013). Foglio 212.1 "Tiglieto", Carta Geologica Regionale (CGR) sc. 1:25000 riferita al Foglio 212 Spigno Monferrato - sc. 1:50000, Regione Liguria. *
- Capponi G., Meccheri M., Pertusati P., Carosi R., CRISPINI L., Musumeci G., Oggiano G., Roland N.W. & Tessensohn F.- (2014) Antarctic Geological 1/250000 Map series. Freyberg Mountains Quadrangle, (Victoria Land). Museo Nazionale dell'Antartide, Sezione di Scienze della Terra, Siena, Italy.
 - Pertusati P., Musumeci G., Carosi R., Meccheri M., Baroni C., Capponi G., Carmignani L., Castelli D., Colombo F., CRISPINI L., Di Vincenzo G., Ghezzi C., Gosso G., Lombardo B., Montomoli C., Montrasio A., Oggiano G., Perchiazzi N., Ricci C.A., Rocchi S., Salvini F., Skinner D.N.B., Talarico F., Tessensohn F. (2014). Antarctic Geological 1/250000 Map series. Mount Melbourne Quadrangle, (Victoria Land). Museo Nazionale dell'Antartide, Sezione di Scienze della Terra, Siena, Italy.
 - AA.VV. 2016, German-Italian Geological Antarctic Map Programme - The Italian Contribution - A Map case for 30 Year of the Italian Research Programme in Antarctica (1985-2015) - P.C. Pertusati, C.A. Ricci & F. Tessensohn (eds.), Terra Antarctica Reports n. 15 16 pp + 8 geological maps* + CD - ISBN 978-88-88395-12-8. * contiene 6 carte geologiche di cui LC e' coautore