



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) Andrea Di Capua
Address(es)
Telephone(s)
Fax(es)
E-mails Italian

Nationality
Date of birth
Gender

Desired employment / Occupational field Interests and competences

Volcano-sedimentology and Geodynamics

Solid background in Stratigraphy, Sedimentology, Petrography, Structural Geology and Volcanology. Strong experience of fieldwork developed in the Western Alps, Brescia Prealps, Dolomite Mts., Northern Apennines, Mt. Etna, Carpathian Mts., Central Patagonia, Canary Islands.

Main research interests:

- role of volcanism on production and transport of sediments;
- volcanic and volcanoclastic deposits as potential reservoirs;
- evolution of the physical behaviour of pyroclastic density currents entering the water;
- reconstruction of volcanism stages in deep times;
- comparison among climatic, tectonic and volcanic controls of sediment supply to basins;
- reconstruction of source-to-sink systems through provenance analysis;
- interaction between volcanism and continental carbonate systems.

Work experience

Dates	1 st September 2016 - ongoing
Occupation or position held	Adjunct professor
Name and address of employer	Department of Theoretical and Applied Sciences - Department of Science and High Technology Università degli Studi dell'Insubria 3, Via J.H. Dunant, 21100 Varese (Italy) & 11, Via Valleggio, 20900 Como (Italy)
Type of business or sector	Academical - Courses of Geomaterials and Environmental Geochemistry (2016-2018), Geothermics and Georesources (2016-2017), Geology and Georesources (2017-2020), Geology of volcanic areas (2021-2022), Geosphere and Geoprospections for the Environment (2018-ongoing)
Dates	1 st September 2016 - 31 st of August 2022
Occupation or position held	Postdoctoral research fellowship
Name and address of employer	Italian National Research Council - I.G.A.G. 9, Via Mario Bianco, 20133, Milan (Italy)
Dates	20 th of October 2011 - September 2013 & 1 st September 2014 - 31 st of August 2017
Occupation or position held	Adjunct professor
Name and address of employer	Department of Earth and Environmental Sciences Università degli Studi di Milano - Bicocca 4, Piazza della Scienza, 20126 Milan (Italy)
Type of business or sector	Academical - Laboratory of Geological Cartography
Dates	21 st of January 2012 - 14 th of May 2012
Occupation or position held	Geologist
Main activities and responsibilities	Geological mapping and geotechnical consulting

Dr. Andrea Di Capua

Name and address of employer	Studio Geologico - Tecnico Lecchese Via Previati 16 23900, Lecco, Italy
Type of business or sector	Private Practice
Education and training	
Dates	11 th of January 2012 - 9 th of February 2015
Title of qualification awarded	PhD in Earth Science Supervisors: Gianluca Groppelli (CNR - IGAG), prof. Roberto Scasso (Universidad de Buenos Aires) Co - supervisor: prof. Giovanni Vezzoli (Università degli Studi di Milano - Bicocca)
Principal subjects/occupational skills covered	"Volcanism versus tectonics in the sedimentary record"
Name and type of organisation providing education and training	Earth and Environmental Sciences Università degli studi di Milano - Bicocca 4, Piazza della Scienza, 20126 Milan (Italy)
Level in national or international classification	Affiliation: CNR - IDPA Milano PhD
Dates	2 nd of November 2009 - 21 st of October 2011
Title of qualification awarded	Master Degree in Geological Sciences & Technologies cum Laude
Principal subjects/occupational skills covered	Thesis Title: "Turbidity currents and Volcanism in the Oligocene Alpine Foredeep" Geological mapping Producing a geological map with "QuantumGis" open source software Reconstructing a stratigraphic clastic sequence after fieldwork and counting conglomerates on field Structural analysis of an area after fieldwork Microscopical analysis of sedimentary microconglomerate thin sections Microscopical analysis of heavy mineral thin sections Technical separation of heavy minerals from arenite samples Creation of a 3D geological model of an area using Move software
Name and type of organisation providing education and training	Dipartimento di Scienze Geologiche e Geotecnologie Università degli studi di Milano - Bicocca 4, Piazza della Scienza, 20126 Milan (Italy)
Level in national or international classification	MSC
Short courses	
Dates	19 th - 25 th of June, 2022 "Summer School 2022: Geological Survey and CARG Cartography" ISPRA
ates	3 rd - 6 th of March, 2015 "Thermo-fluid Dynamics in Computational Volcanology", doct.s Raffaella Pignolo, Mattia de' Michieli Vitturi, Alessandro Fornaciai (INGV Pisa)
Dates	17 th of August, 2014 "Architecture and sequence stratigraphy of clastic shelf margins", doct.s Ron Steel and Cornel Olariu (The University of Texas at Austin, USA)
Dates	2 nd - 4 th of October, 2013 "Geodynamics of Mountain Building and its Interaction with Climate", prof. Peter Molnar (University of Colorado)
Dates	8 th - 10 th of October, 2012 "Sequence stratigraphy: principles and applications", prof. Helland - Hansen (University of Bergen)
Dates	3 rd of July, 2012

	“Processes and depositional architectures in turbidite systems”, prof. S. Milli (Università “La Sapienza”, Roma) & dott. F. Fomesu (E.N.I. Spa)
Dates	5 th of January 2010 - 3 rd of February 2010 “Arenite composition and reconstruction of source - area / depositional - basin system: concepts and applications”, various
Academic Awards	
Date	Short Time Mobility Fellowship (3500€) - “Volcanic hazard assessment of El Hierro Island (Canary Islands - Spain): multidisciplinary approach based on stratigraphic, archaeomagnetic, volcanological and petrographic analyses.
Partnership	Italian National Research Council
Date	June 2017 - Scienza oltre l'emergenza. Your Heartquake makes the difference. 2000 € fellowship for geological mapping in the 2016 earthquake area.
Partnership	Italian Geological Society
Date	June 2013 - 6 month - exchange grant for International mobility (6000€). Visiting PhD at Buenos Aires University.
Partnership	Università degli studi di Milano - Bicocca Piazza dell'Ateneo Nuovo, 1 20126, Milan (Italy)
Date	14 th of June 2012 - 3 year PhD “Fratelli Confalonieri” Fellowship
Partnership	Fondazione “Fratelli Confalonieri” Via V. Monti, 25 20121, Milan (Italy)
Projects	
Date	2016 - 2022
Project details	Bilateral project on mapping of volcanic area between Italy and Hungary (4000€ per year)
Role	Collaborator (PI: Gianluca Groppelli, Szalocs Harangi): fieldwork mapping and analyses of volcanoclastic sequences
Date	
Project details	2016 - 2020 ITALGAS - Experimental assessments and comparative evaluations for the verification of the conformity of the gas distribution network in specific areas of Italy (ca.640000€)
Role	Collaborator (PI: Gianluca Groppelli): grain-size analyses of selected wells of the gas distribution network
Date	
Project details	2016
Role	Early Mesozoic siliciclastic deposits of the Kalahari Karoo Basin (Botswana): a new perspective. (3000000 BWP – ca. 300000€) Collaborator (PI: Fulvio Franchi): petrographic analyses and reconstruction of sediment provenance
Publications	
	Franchi, F., Mustafa, S., Ariztegui, D., Chirindja, F.J., Di Capua, A. , Loizeau, J.L., Mantano, A., Maselli, V., Olabode, O., Pasqualotto, F., Sengwei, W., Tirivarombo, S., Van Loon, A.F., Comte, J.-C. (<i>sub. To Nature Communications in Earth and Environment</i>). Prolonged drought periods over the last four decades increase flood intensity in Southern Africa.
	Di Capua, A. , De Rosa, R., Kereszturi, G., Le Pera, E., Rosi, M., Watt, S.F.L. (<i>sub. to GSL Special Issue 520</i>). Volcanoclastic deposits and sequences: a unified terminology for application in modern and ancient environments.
	Di Capua, A. , Barilaro, F., Norini, G., Groppelli, G. (<i>accepted as invited chapter</i>). Volcanism in the Sahara and its landforms.
	Di Capua, A. , Pandini, R., Barilaro, F., Cavallo, A., Livio, F.A. (2022). Drainage Pattern Evolution During Continental Indentation in Central Alps: Constraints from the Sedimentary Record of Associated Deep-

Water Clastic Offshoots. *Marine and Petroleum Geology*, *in press*.

Lukács, R., Harangi, S., Gál P., Szepesi, J., **Di Capua, A.**, Norini, G., Sulpizio, R., GropPELLI, G., Fodor, L. (2022). Formal definition and description of lithostratigraphic units related to the Miocene pyroclastic rocks outcropping in North Hungary: a revision. *Geologica Carpathica*.

Scaramuzzo, E., Livio, F., Granado, P., Bitonte, R., **Di Capua, A.** (2022). Anatomy and kinematic evolution of an ancient passive margin involved into an orogenic wedge (Western Southern Alps, Varese area, Italy and Switzerland). *Swiss Journal of Geosciences* 115 (1), 1-21.

Di Capua, A., Barilaro, F., GropPELLI, G. - (2021). Deep-Water Accumulation of Volcaniclastic Detritus from a Petrographic Point of View: Beginning a Discussion from the Alpine Peripheral Basins. *Geosciences* 11, 441.

Di Capua, A., Barilaro, F., Szepesi, J., Lukács, R., Gál, P., Norini, G., Sulpizio, R., Soós, I., Harangi, S., GropPELLI, G. - (2021). Correlating volcanic dynamics and the construction of a submarine volcanogenic apron: an example from the Badenian (Middle Miocene) of North-Eastern Hungary. *Marine and Petroleum Geology* 126, 104944.

Norini, G., Aghib, F.S., **Di Capua, A.**, et al. (2021). Assessment of liquefaction potential in the central Po plain from integrated geomorphological, stratigraphic and geotechnical analysis. *Engineering Geology* 282, 105997.

Di Capua, A., Barilaro, F., GropPELLI, G. - (2021). Volcanism and volcanogenic submarine sedimentation in the Paleogene foreland basins of the Alps: reassessing the source-to-sink systems with an actualist view. *Geosciences* 11, 23.

Franchi, F., Kelepile, T., **Di Capua, A.**, Kemiso, O., Lasarwe, R., Catuneanu, O. - (2021). Lithostratigraphy, sedimentary petrography and geochemistry of the Upper Karoo Supergroup in the Central Kalahari Karoo Sub-Basin, Botswana. *Journal of African Earth Sciences* 173, 104025

Di Capua, A., & Scasso, R.A. - (2020). Sedimentological and petrographic evolution in a fluvio-lacustrine environment during the onset of volcanism: volcanically-induced forcing of the sedimentation and environmental response. *Sedimentology* 67 (4), 1879-1913.

Szepesi, J., Lukacs, R., Soos, I., Benko, Z., Pecskay, Z., Esik, Z., Kozak, M., **Di Capua, A.**, GropPELLI, G., Norini, G., Sulpizio, R., Harangi, S. - (2019). Telkibánya lava domes: Lithofacies architecture of a Miocene rhyolite field (Tokaj Mountains, Carpathian-Pannonian region, Hungary). *Journal of Volcanology and Geothermal Research* 385, 179-197.

Klunk, M.A., Dasgupta, S., Das, M., Wander, P.R., **Di Capua, A.** - (2019). Geochemical speciation and batch mode simulation in the carbonate depositional environments. *Periodico Tche Quimica* 16(33), 736-748.

Lu, G., **Di Capua, A.**, Winkler, W., Rahn, M., Guillon, M., von Quadt, A., Willett, S.D. - (2019). Restoring the source-to-sink relationships in the Paleogene foreland basins in the Central and Southern Alps (Switzerland, Italy, France) - a detrital zircon study approach. *International Journal of Earth Sciences*, 108(6), 1817-1834.

de Franco, R., Caielli, G., Norini, G., Aghib, F., **Di Capua, A.**, Boniolo G., Corsi, A., Piccin, A., Facciorusso, J., Martelli, L., and the Mantova Project Group - (2019). Geophysical characterization of liquefaction prone-area: the Quistello test site, central Po Plain, Northern Italy. *Soil Dynamics and Earthquake Engineering* 116, 130-140.

Di Capua, A., & GropPELLI, G. - (2018). The riddle of volcaniclastic sedimentation in deep-water basins: a discussion. *Sedimentary Geology*. DOI: 10.1016/j.sedgeo.2018.05.008

Di Capua, A., & GropPELLI, G. - (2016). Emplacement of synthesized pyroclastic density currents (PDCs) in an Oligocene foredeep basin: the Val d'Aveto Formation case (Northern Apennines, Italy). *Journal of Volcanology and Geothermal Research*, 328, 1-8 <http://dx.doi.org/10.1016/j.jvolgeores.2016.08.003>

Coletti, G., Vezzoli, G., **Di Capua, A.**, & Basso, D. - (2016). From build-up to pebbles: brief history of a crustose coralline build-up of the Upper Eocene of Northwestern Italy. *Rivista Italiana di Paleontologia e Stratigrafia (Research in Paleontology and Stratigraphy)* 122(3), 1-22.

Di Capua, A., Vezzoli, G. & GropPELLI, G. - (2016). Climatic, tectonic and volcanic controls of sediment discharge to an Oligocene foredeep basin: the Val d'Aveto Formation (Northern Italian Apennines). *Sedimentary Geology* 332, 68-84. <http://dx.doi.org/10.1016/j.sedgeo.2015.11.009>

Di Capua, A., & GropPELLI, G. - (2016). Application of actualistic models to unravel primary volcanic control on sedimentation (Taveyenne Sandstones, Oligocene Northalpine Foreland Basin). In: *Sediment generation and provenance: process and pathways from source to sink* (Eds. Caracciolo, von Eynatten, Garzanti & Weltje). *Sedimentary Geology* 336, 147-160. <http://dx.doi.org/10.1016/j.sedgeo.2015.11.004>

Di Capua, A., Vezzoli, G., Cavallo, A., & GropPELLI, G. - (2016). Clastic sedimentation in the Late Oligocene Southalpine foredeep: from tectonically controlled melting to tectonically driven erosion.

Geological Journal. 51(3), 338-353. DOI: 10.1002/gj.2632

Norini, G., Castaldini, D., Marchetti, M., Baraldi, F., Lanfredi Sofia C., Zuluaga Velez, M.C., Aghib, F., **Di Capua, A.**, Furlanetto, G., Groppelli, G., Pini, R., Ravazzi, C., Marcellini, A., Tento, A., Daminelli, R., Gerosa, D., Boniolo, G., Caielli, G., Corsi, A., de Franco, R., Facciorusso, J. & Cavallin, A. - (2015). Acquisizione ed elaborazione di dati geologici, geotecnici e geofisici per la caratterizzazione sismica di parte del territorio lombardo ricadente nell'Area Pilota del Progetto GeoMol - Programma Europeo "Spazio Alpino". Technical Report.

Di Capua, A., & Groppelli, G. (2014). What does "volcanoclastic" mean in a distal sedimentary succession?. In: R. Rocha et al. (eds.), STRATI 2013, Springer Geology, DOI: 10.1007/978-3-319-04364-7_91

Di Capua, A., Groppelli, G., & Vezzoli, G. (2014). Volcanism, relative sea level change and stratigraphic record: an Oligocene example. In: R. Rocha et al. (eds.), STRATI 2013, Springer Geology, DOI: 10.1007/978-3-319-04364-7_91

Di Capua, A., Groppelli, G., & Vezzoli, G. (2012). Stratigraphic trend's evolution of the sedimentary pulses of Val d'Aveto Formation. Rendiconti della Società Geologica Italiana 20, 35-37.

Selected meetings, Lectures and Talks

Di Capua, A., Norini, G., Principe, C., Marti Molist, J., Meletlidis, S., Groppelli, G., (2022). Accumulation of a mixed clastic-lava apron: an example from El Hierro Island (Canary Islands). IAS Congress 2022 22nd – 26th of August, Beijing, China.

Di Capua, A. (2021). The Gonfolite Lombarda Group: sandstones' petrography, gravel lithological associations and their relationship with the Alpine Belt. Zoom Global Conference on "Provenance analysis of sediments" January 9-10, 2021, Beijing, China. Oral Presentation.

Di Capua, A., Barilaro, F., Groppelli, G. (2021). Accumulation of volcanogenic sequences in the Adriatic Foredeep (Northern Italy): the Cibrone Formation. Zoom Global Conference on "Provenance analysis of sediments" January 9-10, 2021, Beijing, China. Oral Presentation.

Di Capua, A., Barilaro, F., (2019). Pyroclastic Deposits in a Non-Marine Hydrothermal Environment: Emplacement Mechanisms, Diagenesis and Implication for Hydrocarbon Generation and Accumulation. AAPG ICE Buenos Aires.

Di Capua, A., Watt, S. (2019). A classical sedimentary approach to the study of a subaqueous pyroclastic deposit: the 2002 block and ash flow deposit offshore of the Montserrat Island. IAS 35th Meeting of Sedimentology 2019, Rome. Key-Note Speaker presentation.

Di Capua, A., Scasso, R. (2017). Proximal volcanoclastic reservoir in an incipient syn-ryft basin: geometry, sedimentary architecture and petrography. AAPG ICE London.

Di Capua, A., Groppelli, G., Barilaro, F. (2017). Deep-water volcanoclastic fan: what can we learn from the past?. AAPG GTW "Influence of Volcanism and Associated Magmatic processes on Petroleum System". Oamaru (NZ).

de Franco, R., Caielli, G., Corsi, A., Boniolo, G., **Di Capua, A.**, Norini, G., Aghib, F., Piccin, A., Amorosi, A., Facciorusso, J., & Martelli, L. (2015). Geophysical characterization of prone sites to seismic liquefaction: the Quistello Po Plain test site. 34th GnGs Trieste 2015. Oral presentation

Di Capua, A., Coletti, G. & Basso, D. (2015). What killed the Tertiary Southalpine carbonate platform? IAS 31st Meeting of Sedimentology 2015, Krakow. Poster presentation

Di Capua, A., Groppelli, G. & Vezzoli, G. (2015). Surface processes and deep-sea sedimentation: when source-to-sink systems are no more preserved. IAS 31st Meeting of Sedimentology 2015, Krakow. Poster presentation

Franchi, F., **Di Capua, A.**, Kavindama, K. & Kelepile, T. (2015). Early Mesozoic siliciclastic deposits of the Kalahari Karoo Basin (Botswana): a new prospective. IAS 31st Meeting of Sedimentology 2015, Krakow. Oral presentation

Coletti, G., Basso, D., **Di Capua, A.** & Vezzoli, G. (2015). From build-up to pebbles: brief history of a crustose coralline build-up of the Upper Eocene of Northwestern Italy. IAS 31st Meeting of Sedimentology 2015, Krakow. Oral presentation

Di Capua, A. (2015). Surface processes and deep-sea sedimentation: when source-to-sink systems are no more preserved. Invited speaker at Politecnico di Milano

Di Capua, A., & Groppelli, G. (2015). How can we distinguish syn- versus post-magmatic supply in deep-sea sequences when pyroclastic density current deposits are apparently not preserved? 2015 EGU General Assembly. Oral presentation

Mulder, T. (Convener), **Di Capua, A. (Co-Convener)**. Gravity-flow processes: behavior, transport, initiation, deposition and geological record. Session at the European Geosciences Union General Assembly 2015.

Di Capua, A., & Groppelli, G. (2014). An Oligocene subaqueous PDC deposit: inferences on its depositional mechanisms. 2014 AGU fall meeting. Oral presentation

Di Capua, A., & Groppelli, G. (2014). A PDC event in the Val d'Aveto Formation. 19th International Sedimentological Congress - Geneva, Switzerland. Poster

Di Capua, A., & Groppelli, G. (2014). Taveyanne sandstones: primary or secondary volcanoclastic turbidites?. 19th International Sedimentological Congress - Geneva, Switzerland. Oral Presentation

Di Capua, A. (2014). Volcanism and sedimentary record: examples from Alps and Patagonia. Invited speaker at Buenos Aires University

Di Capua, A., & Groppelli, G. (2013). What does "volcanoclastic" mean in a distal sedimentary succession?. Strati 2013, 1st International congress on stratigraphy - Lisbon. Oral Presentation

Di Capua, A., Groppelli, G., & Vezzoli, G. (2013). Volcanism, relative sea level change and stratigraphic record: an Oligocene example. Strati 2013, 1st International congress on stratigraphy - Lisbon. Oral Presentation

Di Capua, A., Groppelli, G., & Vezzoli, G. (2012). Stratigraphic trend's evolution of the sedimentary pulses of Val d'Aveto Formation. GeoSed Annual Meeting - Feltre (BL). Oral Presentation

Professional membership

Coordinate Guest Editor for the Geological Society of London - Special Publication 520 "Volcanic Processes in the Sedimentary Record: When Volcanoes Meet the Environment".

Member of the Early Career Scientists Committee of the International Association of Sedimentologists (2015 - 2019)

Member of the American Geophysical Union

Member of the Editorial Board of "Earth Sciences"

Other academical information

Co-tutor of 2 MSC projects on mapping the Biella Oligocene Volcanic Suite (University of Milan-Bicocca)

Tutor of 2 BSC and 1 MSC projects on mapping volcanic and volcanoclastic lithologies and structures in the Varese area (University of Insubria)

Tutor of 1 BSC project on the 3D reconstruction of the sedimentary architectures of Lecco (Northern Italy) (University of Insubria)

Tutor of a MSC project "Characterization of dam sediment for the study of the effects of drought and flood cycles in the Limpopo river basin (South Africa)" (in collaboration with prof. Fulvio Franchi, BIUST - Botswana).

Cotutor of 1 MSC project on Mapping the Southern Rift of El Hierro Island, Canary Islands (Spain).

Personal skills and competences

Mother tongue(s)

Italian

Other language(s)

Spanish, English, French

Self-assessment

European level (*)

Spanish

English

French

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
B2	Indipendent user	B2	Indipendent user	B2	Indipendent user	B2	Indipendent user	B2	Indipendent user
A2	Basic user	A2	Basic user	A2	Basic user	A2	Basic user	A2	Basic user

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences

I have an outgoing character, and resourceful, and I put a lot of enthusiasm in beginning any work, always giving the best I can.

Team work: playing and coaching basketball teams gave me the opportunity to work and interact with people, younger and older than me.

Organisational skills and competences

As a coordinator, I had to interact with all the Basket Lecco coaches to organize coaching programs and basketball manifestations open to everyone who would like to try to play this sport.

As an adjunct professor, I have learnt to organize ideas and knowledges for academical students

I have been a representative school for 3 years at the high school

Technical skills and competences	Structural geological survey of an area to map and realize sections and stratigraphical - structural schemes with both traditional and computer methods Data plotting Kinematic analysis and stress pattern reconstruction of a mapped area Stratigraphic analysis and reconstruction of a mapped area Fieldwork counting conglomerates Heavy minerals separation technique and microscopical observations and recognition Preparation of thin sections from rock samples Preparation of samples for XRD, XRF and SEM-EDS analyses Paleomagnetic analyses (AMS, AIRM, IRM, ThIRM)
Computer skills and competences	Good knowledge: Windows, Linux, InkScape, Gimp, LibreOffice Suite, ArcGis and free Gis (Quantum Gis), Move, AutoCad.
Driving licence	B, A3
Additional information	High propensity for fieldwork

Lecco, 05th of August 2022
 Andrea Di Capua, Ph.D.