

# CV Rosatelli Gianluigi PhD



Researcher (Associated Professor) in Volcanology and Geochemistry (SSD GEO/08) at University G. d'Annunzio, Chieti-Pescara since April 2024.  
Member of the Dipartimento di Scienze

Date of birth: 05/06/1968  
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## EDUCATION AND QUALIFICATIONS:

March 1996 - **Degree in Geological Sciences** at University of Perugia, graduation mark 110/110.

December 1996 – Geologist Professional Licence exam with a positive result.

September 2001 - **Doctor of Philosophy** degree in Geological Sciences at University College London (GB).

Member of the Società Geochimica Italiana (So.Ge.I) and European Association of Geochemistry (EAG) membership number 2019-1050.

## ACTUAL INSTITUTIONAL ASSIGNMENTS

- 2006 Founder Member of Centro di Ateneo di Archeometria e Microanalisi (CAAM)
- 2008 - ongoing: Director of the Laboratory of Volcanology, Geochemistry and Petrology of UdA
- 2018-2020 Director and Teaching, Research activity (RADRL/preposto) of SEM EDAX Facility Laboratory at Center for Advanced Studies and Technology of UdA.
- 2020 - on going: Technical Director and (RADRL/preposto) of DATA (U.D'A ANALYTICAL HIGH-TECH LABORATORY).
- Coordinator of GeoMed: an integrated laboratory network for studying the relations between human health and the environment, focusing on anthropogenic modifications of ecosystems and pollution.
- 2022- ongoing member of the Doctorate in Geoscience Committee

## TEACHING ASSIGNMENTS

- 2008- on going: Teacher of Geochimica [00799] 6CFU - LM34 Science Geologiche
- 2008- on going: Teacher of Applied Environmental Geochemistry [GE222] 6CFU- LM74 Scienze e Tecnologie Geologiche della Terra e dei Pianeti
- 2013/2014 Teacher Rischio Vulcanico 3CFU -LM-74 Scienze e Tecnologie Geologiche

- 2018 – ongoing: Laboratory Training - LM34 and LM74
- 2021- ongoing: Teacher of Volcanology Fieldwork 3CFU - LM74 Scienze e Tecnologie Geologiche della Terra e dei Pianeti
- 2020 – ongoing Introduction to Environmental Risks - EEH (Earthquake and Environmental Hazards) PhD course
- 2019- ongoing: Introduction to Electron Microscopy - EEH PhD course
- 2013-2022 - Relator of 39 Bachelor's degree Thesis e 4 Master's degree Thesis. (Data source CdS Geological Science).

#### **PEER-REVIEWED COMPETITIVE FUNDING**

##### **FUNDED PROJECTS AS PRINCIPAL INVESTIGATOR (PI) OR TEAM RESEARCHER (TR):**

- March 1998- March 2000 (PI) Young Researcher grant at the Natural History Museum for the project on the “Rangwa carbonatite-alkaline volcanic complex”.
- February 2001 (PI) - “Researcher Access to Large Scale Geochemical Facilities (ELSF European Commission), “Review of the Ruri (Kenya) rock collection” at Natural History Museum, (London - GB)
- November 2000 – November 2003 (TR) EuroCarb - a study of mantle carbon and carbon cycles. Founded by European Science Foundation Ref. Code ESF.04.06-04-1140
- January 2003 (PI) - “Researcher Access to Large Scale Geochemical Facilities (ELSF European Commission), “Mineralogy and petrology of carbonatites, melilitites and associated mafic-ultramafic nodules from the late Pleistocene province of Italy and Uganda”, at Natural History Museum (London - GB).
- August 2003 (PI) - Researcher Access to Large Scale Geochemical Facilities (ELSF European Commission), “Mineralogy and petrology of Italian Lamprophyres” at Bristol University (GB).
- September 2005 (TR) - Co-funding from PRIN on the research project “Vulcaniti del Vulture”.
- October 2006 (PI) - Synthesis (European Union-funded Integrated Infrastructure Initiative grant) “Geochimica delle carbonatiti estrusive” at Natural History Museum (London - GB).
- December 2010 (TR/PI) - Ministero per i Beni ed Attività Culturali (Progetto SISMA Abruzzo – Verifiche di Vulnerabilità sismica) - Seismic Vulnerability LV2 and LV3 assesment on the Cultural Heritage buildings of Abruzzo County.
- March 2012 (TR) - Seismic Micro zonation LV 1 – Avezzano, Regione Abruzzo local authority (POR-FESR, IV, 3.1.c) and Italian National Department of Civil Protection (DPC) (art. 11, DL 39/2009).
- February 2016 – February 2021 (TR) H2020-EU.3.5.3 - HiTech AlkCarb - “New geo-models to explore deeper for High-Technology critical raw materials in Alkaline rocks and Carbonatites”; grant agreement ID: 689909. <https://www.bgs.ac.uk/HiTechAlkCarb/?src=topNav>.
- December 2022 (PI) – Grant assigned - Synthesis (European Union-funded Integrated Infrastructure Initiative grant) “Geochemical characterization of carbonatitic melts in the mantle” at Natural History Museum (London - GB).

##### **FUNDED PROJECT IN COLLABORATION WITH ENVIRONMENTAL AND HEALTH CARE INSTITUTIONS (AS PROJECT MANAGER AND SCIENTIFIC LEADER)**

- June 2012 – “Development of remote sensing techniques for the survey of asbestos roofing”, contract with ASL “Industrial Hygiene” of Lazio County.

- December 2012 - “Survey and analysis of civil and industrial waste waters, the survey of waste abandons along the river Pescara” contract with “Waste Disposal Service Dept.” of Abruzzo County.
- November 2014 - “Survey and analysis of civil and industrial wastewaters draining into the Pescara River” contract with “Waste Disposal Service Dept.” of Abruzzo County.
- February 2017 – “Survey and analysis of civil and industrial waste waters draining into the Fino-Tavo-Saline river system” contract with “Waste Disposal Service Dept.” of Abruzzo County.

**PATENTS:** “Geotalpa gas micro analyser“, patent deposit in Italy 04/07//2013 -Rif. BREV/AI/A17473- RM2013A000395, European patent deposit ref: E14425000.9. Licensed to Drone Group s.r.l.

**SPIN-OFF:** Funder and CEO of RES.GEA s.r.l., spin-off Università G. d’Annunzio (2013).

#### **PUBLICATIONS IN PEER REVIEW JOURNALS**

1. Rosatelli G., Stoppa F., Jones A.P. (2000). Intrusive calcite-carbonatite occurrence from Mt. Vulture volcano, Southern Italy. *Mineralogical Magazine* 64, 155-164.
2. Stoppa F., Lloyd F., Rosatelli G. (2003). CO<sub>2</sub> as the propellant of carbonatite-kamafugite cognate pairs and the eruption of diatremic tuffisite. *Periodico di Mineralogia* 72, 205-222.
3. Stoppa, F.; Cundari, A.; Rosatelli, G.; Woolley, A. R. (2003). Leucite melilitolites in Italy: genetic aspects and relationships with associated alkaline rocks and carbonatites. *Periodico di Mineralogia* 72, 223-251.
4. Rosatelli G., Wall F., Le Bas M.J. (2003). Potassic glass and calcite carbonatite in lapilli from extrusive carbonatites at Rangwa Caldera Complex, Kenya. *Mineralogical Magazine* 67, 931-955.
5. Stoppa F., Rosatelli G. Wall F., Le Bas M.J. (2003). Texture and mineralogy of tuffs and tuffisites at Ruri Volcano in western Kenya: a carbonatite, melilitite, mantle-debris trio. *Periodico di Mineralogia* 72, 181-204.
6. Bell K., Castorina F., Lavecchia G., Rosatelli G. and Stoppa F. (2004). Is there a mantle plume below Italy? *Eos* 85, 541-547.
7. Stoppa F., Rosatelli G., Wall F., Jeffries T. (2005). Geochemistry of carbonatite-silicate pairs in nature: a case history from Central Italy. *Lithos* 85, 26-47.
8. Stoppa F., Rosatelli G., Cundari A., Castorina F. and Woolley A.R. (2005). Comments to Melluso et al. (2004) on the reported data and interpretation of some wollastonite and melilitite-bearing rocks from the central Apennine of Italy. *American Mineralogist* 90, 1919- 1925
9. Wall, F.; Rosatelli, G.; Stoppa, Francesco (2005). Carbonatites plus: A special issue arising from the ‘EuroCarb’ ESF network. *Lithos* 85, 7-8.
10. Solovova I.P., Giris A.V., Kogarko L.N., Kononkova N.N., Stoppa F., and Rosatelli G. (2005). Compositions of magmas and carbonate-silicate liquid immiscibility in the Vulture alkaline igneous complex, Italy. *Lithos* 85, 113-128.
11. Woolley A.R., Castorina F., Cundari A., Rosatelli G., Stoppa F. and Wall F. (2005). Replay to: “Carbonate-rich pyroclastic rocks from Central Apennines: carbonatites or carbonated rocks? A commentary”. A. Peccerillo. *Periodico di Mineralogia*, 74, 183-194.
12. Bell K., Castorina F., Rosatelli G., and Stoppa F. (2006). Plume activity, magmatism, and the geodynamic evolution of the Mediterranean. *Annales Geophysicae*, 48, 891-905.

13. Rosatelli G., Wall F. and Stoppa F. (2007). Calcio-carbonatite melts and metasomatism in the mantle beneath Mt. Vulture (Southern Italy). *Lithos*, 99, 229-248. <https://doi.org/10.1016/j.lithos.2007.05.011>.
14. Schingaro, E., Scordari, F., Matarrese, S., Mesto, E., Stoppa, F., Rosatelli, G., & Pedrazzi, G. (2007). Phlogopite from the Ventaruolo subsynthem volcanics (Mt Vulture, Italy): A multi-method study. *Mineralogical Magazine* 71, 519-537. doi:10.1180/minmag.2007.071.5.519.
15. Wall, F., Rosatelli, G., Bailey, D., Jeffries, T., Kearns, S., & Muñoz, M. (2008). Comparison of calcite compositions from extrusive carbonatites at Kaiserstuhl, Germany and Calatrava, Spain: implications for mantle carbonate. *International Kimberlite Conference: Extended Abstracts*, 9. <https://doi.org/10.29173/ikc3476>.
16. Matarrese S., Schingaro E., Scordari F., Stoppa F., Rosatelli G., Pedrazzi G., and Ottolini L. (2008). Crystal chemistry of phlogopite from Vulture S. Michele subsystem volcanics (Mt. Vulture, Italy) and volcanological implications. *American Mineralogist* 93, 426-437. DOI:10.2138/am.2008.2587.
17. Stoppa F., Rosatelli G. (2009). Ultramafic intrusion triggers hydrothermal explosions at Colle Fabbri (Spoleto, Umbria), Italy. *Journal of Volcanology and Geothermal Research* 187, 85-92.
18. Rosatelli, G., Wall, F., Stoppa, F. Brilli M. (2010). Geochemical distinctions between igneous carbonate, calcite cements, and limestone xenoliths (Polino carbonatite, Italy): spatially resolved LAICPMS analyses. *Contribution to Mineralogy and Petrology* 160, 645–661. <https://doi.org/10.1007/s00410-010-0499-x>
19. K. Bell, G. Lavecchia, G. Rosatelli (2013). Cenozoic Italian magmatism – Isotope constraints for possible plume-related activity. *Journal of South American Earth Sciences* 41, 22-40. <https://doi.org/10.1016/j.jsames.2012.10.005>.
20. Di Giulio G., De Nardis R., Boncio P., Milana G., Rosatelli G., Stoppa F., Lavecchia G. (2016). Seismic response of a deep continental basin including velocity inversion: the Sulmona intramontane basin (Central Apennines, Italy), *Geophysical Journal International* 204, 418–439, <https://doi.org/10.1093/gji/ggv444>.
21. Stoppa F., Schiazza M., Pellegrini J., Ambrosio F.A., Rosatelli G., D'Orsogna M.R. Phthalates, heavy metals and PAHs in an overpopulated coastal region: Inferences from Abruzzo, central Italy, (2017), *Marine Pollution Bulletin*, 125, 501-512, <https://doi.org/10.1016/j.marpolbul.2017.08.008>.
22. Biancofiore, Fabio; Busilacchio, Marcella; Verdecchia, Marco; Tomassetti, Barbara; Aruffo, Eleonora; Bianco, Sebastiano; Di Tommaso, Sinibaldo; Colangeli, Carlo; Rosatelli, Gianluigi; Di Carlo, Piero (2017). Recursive neural network model for analysis and forecast of PM10 and PM2.5 Atmospheric Pollution Research, Volume 8, 652-659. <https://doi.org/10.1016/j.apr.2016.12.014>
23. Taglieri, Giuliana; Daniele, Valeria; Rosatelli, Gianluigi; Sfarra, Stefano; Mascolo, Maria Cristina; Mondelli, Claudia (2017). Eco-compatible protective treatments on an Italian historic mortar (XIV century). *Journal of Cultural Heritage* 25, 135-141. [10.1016/j.culher.2016.12.008](https://doi.org/10.1016/j.culher.2016.12.008)
24. Daniele, V.; Taglieri, G.; Macera, L.; Rosatelli, G.; Otero, J.; Charola, A. E. (2018). Green approach for an eco-compatible consolidation of the Agrigento biocalcarene surface. *Construction and Building Materials* 186, 1188-1199. <https://doi.org/10.1016/j.conbuildmat.2018.08.033>
25. Piccirilli A, Pompilio A, Rosatelli G., et al. (2019). Identification of CTX-M-15 and CTX-M-27 in Antibiotic-Resistant Gram-Negative Bacteria Isolated from Three Rivers Running in Central Italy. *Microb. Drug Resist.* 25, 1041-1049. doi:10.1089/mdr.2019.0016.

26. Francesco Stoppa, Mariangela Schiazza, Gianluigi Rosatelli, Francesca Castorina, Victor V. Sharygin, Francesco Antonio Ambrosio, Noemi Vicentini, Italian carbonatite system: From mantle to ore-deposit (2019). *Ore Geology Reviews* 114, 103041, <https://doi.org/10.1016/j.oregeorev.2019.103041>.
27. Taglieri G., D. Rigaglia, L. Arrizza, V. Daniele, L. Macera, G. Rosatelli, V. Romè, G. Musolino, Microanalytical investigations on a Byzantine fresco of the Dormitio Virginis from Sicily, *Journal of Cultural Heritage*, Volume 40,155-162, ISSN 1296-2074, <https://doi.org/10.1016/j.culher.2019.05.016>.
28. Salge T., H. Stosnach G. Rosatelli, L. Hecht W.U. (2019) Reimold Evidence for shock-induced anhydrite recrystallization and decomposition at the UNAM-7 drill core from the Chicxulub impact structure. *Meteoritics & Planetary Science* 1–23 (2019) doi: 10.1111/maps.13283.
29. Deborah Di Naccio, Daniela Famiani, Francesca Liberi, Paolo Boncio, Fabrizio Cara, Antonio De Santis, Giuseppe Di Giulio, Fabrizio Galadini, Giuliano Milana, Gianluigi Rosatelli, Maurizio Vassallo (2020). Site effects and widespread susceptibility to permanent coseismic deformation in the Avezzano town (Fucino basin, Central Italy): Constraints from detailed geological study. *Engineering Geology*, Volume 270, 105583, <https://doi.org/10.1016/j.enggeo.2020.105583>.
30. Perna, M.G., Zaccaria, D., Rosatelli, G., Stoppani, F.S., Curti, E., Spratt, J., Humphreys-williams, E., Najorka, J., Brownscombe, W., Nestola, F., Stoppa, F. (2021). Dissolution-repackaging of hellandite-(Ce), mottanaite-(ce)/ferri-mottanaite-(ce). *Minerals* 11, 610. <https://doi.org/10.3390/min11060610>.
31. Stoppa F., Cirilli S., Sorci A., Broom-Fendley S., Principe C., Perna M.G. and Rosatelli G. (2021). Igneous and sedimentary ‘limestones’: the puzzling challenge of a converging classification. *Geological Society London Special Publications* 520: “Volcanic Processes in the Sedimentary Record: When Volcanoes Meet the Environment”, Di Capua, A., De Rosa, R., Kereszturi, G., Le Pera, E., Rosi, M. and Watt, S. F. L. (eds). <https://doi.org/10.1144/SP520-2021-120>.
32. Zaccaria, D.; Vicentini, N.; Perna, M.G.; Rosatelli, G.; Sharygin, V.V.; Humphreys-Williams, E.; Brownscombe, W.; Stoppa, F. (2021). Lamprophyre as the Source of Zircon in the Veneto Region, Italy. *Minerals* 11, 1081. <https://doi.org/10.3390/min11101081>
33. Rosatelli G., Humphreys-Williams E., Wall F., Castorina F., Perna M.G., Stoppa F. (2022). The Calatrava paradox to decipher the origin of carbonatites: A petrological insight on Finca La Nava, Calatrava Province (central Spain). *Lithos* 416-417, 106649, <https://doi.org/10.1016/j.lithos.2022.106649>.
34. Vichi G., Perna M.G., Ambrosio F., Rosatelli G., Cirillo D., Broom-Fendley S., Vladykin N.V., Zaccaria D., Stoppa F. (2022). La Queglia carbonatitic melnöite: a notable example of an ultra-alkaline rock variant in Italy. *Mineralogy and Petrology* <https://doi.org/10.1007/s00710-022-00792-0>.
35. Daniele V., Rosatelli G., Macera L., Taglieri G. (2022) New aqueous nanolime formulations for fully compatible consolidation treatments of historical mortars for hypogeum environment. *Construction and Building Materials* 356, 129316, <https://doi.org/10.1016/j.conbuildmat.2022.129316>.
36. Rosatelli G., Castorina F., Consalvo A., Brozzetti F., Ciavardelli D., Perna M.G., Bell K., Bello S., Stoppa F. (2023). Elemental abundances and isotopic composition of Italian limestones: Glimpses into the evolution of the Tethys. *Journal of Asian Earth Sciences*: X, 9, 1000136. <https://doi.org/10.1016/j.jaesx.2023.100136>.
37. Falcone, F., Di Valerio, E., La Salvia, V. et al. (2023). Geo-archaeology, archaeometry, and history of a seismic-endangered historical site in central Apennines (Italy). *Herit Sci* 11, 68 . <https://doi.org/10.1186/s40494-023-00906-7>

38. Bello S., Perna M.R., Consalvo A., Brozzetti F., Galli P., Cirillo D., Andrenacci C., Tangari A.C., Carducci A., Menichetti M., Lavecchia G., Stoppa F., and Rosatelli G. (2023). Coupling rare earth element analyses and high-resolution topography along fault scarps to investigate past earthquakes: A case study from the Southern Apennines (Italy). *Geosphere* –24, doi: <https://doi.org/10.1130/GES02627.1>.
39. Novembre D., Gimeno D., Rosatelli G. et al., (2024). Rice Husk as Raw Material in Synthesis of NaA (LTA) Zeolite. *Molecules* 29, 4396, doi.org/10.3390/molecules29184396.
40. Perna M.G., Falcone F., ..Rosatelli G., et al. (2024). Analysing the glaze of a medieval ceramic fragment from the Durres Amphitheater in Albania. *Heritage Science* 12, 82 <https://doi.org/10.1186/s40494-024-01175-8>.
41. Falcone F., Cinosi A., Siviero G., Rosatelli G., (2024). Innovative methodological approach integrating SEM-EDS and TXRF microanalysis for characterization in materials science: A perspective from cultural heritage studies. *Spectrochimica Acta Part B: Atomic Spectroscopy* 2015, 106980. doi.org/10.1016/j.sab.2024.106980.
42. Talpur H.A., Talpur S.A., Mahar A., Rosatelli G., et al. (2024). Investigating drinking water quality, microbial pollution, and potential health risks in selected schools of Badin city, Pakistan. *HydroResearch* 7, 248-256; doi.org/10.1016/j.hydres.2024.04.004.
43. Novembre D., Gimeno D., .. Rosatelli G. et al., (2024). Synthesis and Characterization of Na-P1 (GIS) Zeolite Using Rice Husk. *Molecules* 29, 5596,doi.org/10.3390/molecules29235596.
44. Shakeel A.T., Cinosi A., Stoppa F., Talpur H.A., Novembre D., Rosatelli G. (2025). Heavy metals pollution of Pescara River (southern Italy): Risk assessment based on total reflection X-ray fluorescence analyses. *Marine Pollution Bulletin* 211, 117397. doi.org/10.1016/j.marpolbul.2024.117397.
45. Bello S., Galli P , Perna M G., Peronace E., Messina P., Rosatelli G., Andrenacci C., Lavecchia G., Pietrolungo F., Consalvo A., Mouslopoulou V., Brozzetti F.(2025). Paleo-Earthquake Fingerprints and Along-Strike Slip Variation of the Silent Mt. Morrone Normal Fault (Central Italy): A Structural-Geochemical Approach. *Geochemistry, Geophysics, Geosystems* 26, e2024GC011868. doi.org/10.1029/2024GC011868.

## **Geological Cartography**

1. Rosatelli G. (2006). Carte geologiche ed idrogeologiche su base CTR della Regione Umbria in scala 1:10.000, sez. 333-120 “Montalfina”, Rilevatore.
2. Rosatelli G. (2006). Carte geologiche ed idrogeologiche su base CTR della Regione Umbria in scala 1:10.000, sez. 334-090 “Torre San Severo”, Rilevatore.
3. Rosatelli G. (2006). Carte geologiche ed idrogeologiche su base CTR della Regione Umbria in scala 1:10.000, sez.334-130 “Casa Nuova”, Rilevatore.
4. Rosatelli G. (2006). Cartografia Geologica Tematica Regione Umbria: Carta Geologica in scala 1:10.000, Carta della Pericolosità sismica Locale in scala 1:10.000 Sezione 322120 “San Venanzo”. Rilevatore.

## **Other publication**

1. Stoppa, Francesco; Rosatelli, Gianluigi; G., Vichi; A. and Principe, C. (2004). Extrusive carbonatites and their meaning: the case of Italy. 32°IGC, Pre-Congress Workshop - BW02.
2. Rosatelli G., Stoppa F. (2004). Il geosito di Collefabbrì. In: *La Poesia del Divenire- Il paesaggio Geologico dell'Umbria Meridionale*. Bardi Editore pp. 205-213.

3. Rosatelli G., Stoppa F. (2004). La voce profonda dei Vulcani. In: La Poesia del Divenire- Il paesaggio Geologico dell'Umbria Meridionale. Bardi Editore pp. 97-110.
4. D'Orefice M., Graciotti R., Capitanio F., Stoppa F., Rosatelli G., Vichi G., Barbieri M. (2005). Il vulcanismo medio-pleistocenico dell'Appennino Laziale-Abruzzese: dalle peculiarità scientifiche agli aspetti applicativi. Memorie descrittive della Carta Geologica d'Italia, Selca – Firenze, Vol. LXXII, pp. 7-67.
5. Stoppa F., Rosatelli g., Principe C. (2006). Modal Classification of Monte Vulture Volcano. In: La Geologia del Monte Vulture, Ed Principe C., Grafiche Finiguerra-Lavello, pp. 87-103.
6. Rosatelli G., Pomposo G., Stoppa F., Pugliese G. (2011). Implementazione del censimento delle coperture contenenti amianto con utilizzo delle tecniche di remote sensing e microscopia elettronica a scansione. Rivista: Abruzzo Ambiente e Salute (ISBN 9788896804155), 10-18.
7. Stoppa F., Rosatelli G., Schiazza M., Tranquilli A. (2012) Hydrovolcanic vs Magmatic Processes in Forming Maars and Associated Pyroclasts: The Calatrava -Spain- Case History. In: Updates in Volcanology - A Comprehensive Approach to Volcanological Problems. Ed, F. Stoppa, IntechOpen publication, pp. 3-26. DOI:10.5772/25264.

Chieti, 31/03/2025

Gianluigi Rosatelli

