

# CV Luca Valentini

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## Personal Details

- Date of birth: 28-05-1979
- Nationality: Italian

## Education & Academic Career

2004	B.Sc. in Geological Sciences (110/110 cum laude) University of Perugia (21-05-2004)
2009	Ph.D. Dept. of Earth and Ocean Sciences - National University of Ireland Galway
2009 – 2016	Post-doctoral research fellow Dept. of Geosciences - University of Padua
2016 – 2022	Assistant Professor Dept. of Geosciences - University of Padua
2022 – present	Associate Professor Dept. of Geosciences - University of Padua
2023	Habilitation to full professorship

## Awards

2010 SIMP (Italian Society of Mineralogy and Petrology) award for best PhD thesis

## Research topics

sustainable sourcing of raw materials for construction; kinetic and thermodynamic modelling of dissolution-precipitation processes; 3D microstructural imaging; in situ resource utilization; circular economy; sustainable urbanization in emerging economies; crystallization and nano-seeding; waste management

## Bibliometrics

Number of publications (Scopus): **82**; Citations (Scopus): **1483**; H-Index (Scopus): **23**  
Scopus ID: 34973750100; OrcID: 0000-0001-6302-872X

## Solicited and Keynote Presentations

- Thermodynamic modelling in the management of industrial waste streams  
*SIMP-SGI Congress*. Bari, Italy, 2024

- In Situ Resource Utilization Approach to the Deployment of Lunar Infrastructure  
*International Congress on Ceramics*. Montreal, Canada, 2024
- Sustainable resource utilization in lunar construction  
*Euromech-CNRS Colloquium*. Vienna, Austria, 2024
- Building a circular future: raw materials sourcing and supply chains in the construction industry  
*SIMP-SGI-SOGEI-AIV Congress*. Potenza, Italy, 2023
- Sustainable sourcing of raw materials for the built environment  
*RILEM spring convention*. Rabat, Morocco, 2023
- How can computer models help us understand mineral forming processes?  
*EGU general assembly - online* 2021
- Industrial Minerals in the Spotlight: Optimizing their Environmental Performance for Sustainable Development.  
*PhD School "Physical Properties of Minerals"*. Brixen/Bressanone, Italy, 2018
- Role of PCE superplasticizers in cement hydration and microstructural development.  
*2nd International Congress on Materials and Structural Stability*. Rabat, Morocco, 2017

## Major Funded Projects

- Italian Space Agency call Research Days – ”GLAMS: Geopolymers for Lunar Additive Manufacturing and Sensing” (Principal Investigator, 2023-2025; awarded grant: 426,000 EUR)
- PRIN 2017 ”MIRELAP: Mineral Reactivity in Large-scale Processes” (Participant, 2019-2021)
- COST Action TU 1404 “Towards the Next Generation of Standards for Service Life of Cement-Based Materials and Structures” (Participant, 2015-2018)

## Editorial Activity

- Member of the Editorial Board: Discover Minerals (Springer)
- Guest Editor: Elements: Cement and Concrete - From the Romans to Mars

## Organising & scientific committees

- 34th European Crystallographic Meeting (*Padua, Italy, 2024*). **Member of the Organising Committee**
- RILEM Spring Convention 2024 (*Milan, Italy, 2024*). **Member of the Scientific Committee**
- International Conference on Concrete under Severe Conditions (*Chennai, India, 2024*). **Member of the Scientific Committee**
- Synercrete23. The International RILEM Conference on Synergising expertise towards sustainability and robustness of cement-based materials and concrete structures (*Milos, Greece, 2023*). **Member of the Scientific Committee**
- RILEM Spring Convention and Congress on Materials and Structural Stability (*Rabat, Morocco, 2023*). **Member of the Scientific Committee**
- 3rd International Conference on Innovative Technologies for Clean and Sustainable Development (*Chandigarh, India, 2020*). **Member of the Scientific Committee**
- RILEM Spring Convention and Sustainable Materials, Systems and Structures Conference (*Rovinj, Croatia, 2019*). **Member of the Scientific Committee**
- 9th International Conference on Industrial Computed Tomography (*Padova, Italy, 2019*). **Member of the Scientific Committee**

## **Institutional responsibilities and commissions of trust**

2016–present Member of the Departmental Council  
Department of Geosciences, University of Padua

2019–present Member of the PhD Board  
Department of Geosciences, University of Padua

2020–2023 Coordinator of the X-ray Tomography Laboratory  
Department of Geosciences, University of Padua

2020–present Coordinator of KA171 Erasmus+ mobility flow with Meru University (Kenya)  
Department of Geosciences, University of Padua

2021–present Member of the Proposals Evaluation Board  
The Malta Council for Science and Technology

2022–present Coordinator of the Internationalisation Unit  
Department of Geosciences, University of Padua

2022–present Member of the Department Advisory Board  
Department of Geosciences, University of Padua

2024–present Deputy Coordinator of the PhD programme in Geosciences  
Department of Geosciences, University of Padua

## **Supervision of Graduate Students and Post-doctoral Fellows**

2016–present: 2 post-doc; 3 PhD; 2 visiting PhD; 17 Master's

## **Teaching**

Currently taught courses:

- Mineral Processes and Environmental Applications (M.Sc. Environmental Geology and Earth Dynamics)
- Crystal Chemistry of Materials for the Sustainable Built Environment (M.Sc. Materials Science)

Visiting Professor: Meru University of Science and Technology, Kenya (October 2022; September 2023)

## **Industrial collaborations**

- OPIGEO (UNIPD spinoff): founding member
- MAPEI: collaboration from 2009 to present