



Italian Society of Mineralogy and Petrology

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Paolo Mazzoleni,
SIMP President

The new SIMP Council expresses its gratitude to the outgoing President, Professor Francesco Princivalle, and the entire past Council for their dedicated efforts in fostering the growth of our Society. Our three-year program for 2024–2026 aims to focus on specific lines of action outlined in the new Statute. The shared ambition is to continue the scientific support activities for the community by organizing and promoting national and international conferences, schools, and workshops. It is noteworthy that in 2023, SIMP actively participated at various levels in numerous successful events, such as EMPG-XVIII

(Milan, 12–15 June 2023), EMAC-XVI (Pisa, 14–16 June 2023) and the Italian Joint Congress SIMP, SGI, SOGEL, AIV (Potenza, 19–21 September 2023).

Within this framework, the SIMP Council considers the support of young researchers to be crucial, with the aim of maintaining and, if possible, increasing the substantial financial resources allocated to grants and awards in 2023 (approximately 30,000 euros). There is also a commitment to create new opportunities for the exchange of ideas and information, in coordination with other such as BeGEO Scientists.

Lastly, we view it strategic to contribute to the dissemination of Earth sciences, in particular mineralogy, petrology, and their applications. Public engagement is a significant goal for SIMP, and we intend to promote outreach activities through working groups dedicated to communication and museums. The issue of education in our disciplines in schools is of particular importance. In this regard, SIMP will strive to develop a more direct relationship with teachers and students.

On behalf of SIMP

PRESIDENT: Paolo Mazzoleni (University of Catania)

VICE PRESIDENT: Patrizia Fumagalli (University of Milan)

SECRETARY: Nadia Malaspina (University of Milano Bicocca)

TREASURER: Donato Belmonte (University of Genoa)

COUNCIL MEMBERS: Matteo Alvaro (University of Pavia), Matteo Ardit (University of Ferrara), Maria Lacalamita (University of Bari), Antonio Langone (University of Pavia), Paolo Lotti (University of Milan), Concetta Rispoli (University of Naples)

SIMP-SGI ANNUAL MEETING 2023

The Geoscience Paradigm: Resources, Risks, and Future Perspectives

The Italian Society of Mineralogy and Petrology, jointly with the Italian Geological Society, the Italian Geochemical Society, and the Italian Association of Volcanology, organized in the period from September 19 to 21, 2023, the Congress entitled “The Geoscience Paradigm: Resources, Risks, and Future Perspectives.”

The Congress was held at the University of Basilicata in the Macchia Romana Campus, Potenza (Basilicata). Because of its geological history, this area represents a natural laboratory where it is possible to combine purely scientific and popular interests with those related to the landscape and environmental features, as well as to promote geotourism. The region’s great geological variety includes ophiolites outcropping in the UNESCO Global Geopark (Pollino Massif), the volcanic massif of Mount Vulture with the Lakes of Monticchio, the silicoclastic sediments of the Apennines, the Ionian Plain, the powerful Apennine limestone-dolomite succession, and the calcarenites of the



Field trip in the Pollino Massif, part of the UNESCO Global Geopark.



Student helpers with Giovanna Russo (organizing committee).

Murgia Materana. This richness enabled the activation of two pre-Congress and one post-Congress excursions.

During the Congress, special attention was paid to young researchers and students through the organization of targeted events, including PhD day on September 18, which was followed by a dissemination event held by L. Bignami. The response from our community was enthusiastic with 747 total participants, including 49 from abroad, representing 140 different institutions. The 44 activated sessions included 890 abstracts with 504 oral and 386 poster communications. The plenary lectures, which were widely attended, involved internationally prominent personalities including R. De Rosa, M. Scambelluri, K. Johannesson, and B.H. Hager. Large and qualified was sponsor participation with 22 accessions.

The Joint Congress provided an opportunity to reflect on the role of geosciences for a more sustainable, ethical, and safe future, in protecting against natural hazards, including those triggered by climate change, and the function that geosciences should assume in the civic and scientific education of citizens.

On behalf of the organizing committee: **Giovanna Rizzo** and **Giovanni Mongelli**
(Dept. of Science, University of Basilicata, Italy)



Marco Scambelluri (University of Genoa), plenary lecture speaker.

SIMP AWARDS AND MEDAL WINNERS

Honorary Fellows

Every year, SIMP confers the title of “Honorary Fellow” to distinguished members of the scientific community.

The Honorary Fellow of the Società Italiana di Mineralogia e Petrologia for 2023 went to Yves Moëlo, retired researcher at the Institut des Matériaux Jean Rouxel, Université de Nantes, France.



Yves Moëlo is well known in the international mineralogical community for his contribution to mineral systematics and, in particular, for his seminal work on the crystal chemistry and systematics of sulfosalts. In this context, he was the senior author of the report of the sulfosalt sub-committee of the IMA Commission on Ore Mineralogy, and he developed, on the basis of the

Makovicky's fundamental works, a comparative modular analysis of sulfosalt crystal structures. Since the beginning of his research, Yves Moëlo's scientific activity has mainly focused on the role of minor chemical constituents in the stabilization of complex crystal structures. For instance, at the end of the 1970s, he first identified the role of Cl in the crystal structure of dadsonite, and later pointed out the critical role played by other minor chemical constituents, such as O, As-As pairs, S-S dimers, or minor cations (e.g., Cu, Hg) in several sulfosalts. He also focused on ore mineralogy and the solid-state chemistry of synthetic chalcogenides, collaborating with chemists and crystallographers. Moreover, Yves Moëlo is involved in the study and description of new mineral species (≈ 40 new species).

Plinius Medal

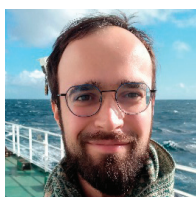
The Plinius Medal is awarded, not periodically, to individuals who have done excellent research and/or played a primary role in promoting SIMP activities at the national and international levels.



Alessandro Pavese has been a full professor of mineralogy since 2005. He served as SIMP President and Head of the Earth Sciences Department at the University of Milan. He is presently the Head of the Earth Sciences Department at the University of Turin, as well as a Member of the Academic Senate and of the Academy of Sciences of Turin and vice-President

of EMU. He deals with the thermodynamic behavior of minerals and assemblages at non-ambient conditions in natural and anthropic environments using theoretical and experimental methods of investigation. He pays special attention to the valorization of minerals in manufacturing, exploiting the developed knowledge of their behavior in nature; in particular, reactivity at high-pressure and high-temperature conditions (Earth's lower-mantle environments), phase/state transitions prediction via modeling using catastrophe theory, transformations of minerals in sanitary ware, municipal solid waste incineration products and their mineralization, and carbon dioxide capture into minerals.

Angelo Bianchi – Early Career Researcher Award 2023



Valentin Basch

University of Pavia, Italy

The scientific activity of Valentin Basch is focused on the petrology and geochemistry of the oceanic lithosphere. His research is primarily aimed at constraining the magmatic processes shaping

oceanic environments from i) mantle melting to ii) melt transport in the upper mantle and lower gabbroic crust, and iii) (reactive) crystallization of melts. The combination of field observations, structural analyses, and geochemical characterization of minerals and bulk rocks allows for a detailed assessment of the complexity of magmatic processes. His studies are conducted in all of the different oceanic environments from ocean-continent transition to slow-spreading ridges, fast-spreading ridges, and back-arc basins.

SIMP Best PhD Thesis Awards 2023



Marta Fugazzotto

University of Catania, Italy

THESIS: *Functionalized geopolymers for restoration: new materials for brick masonries recovery in Mediterranean archaeological sites*

TUTOR: Germana Barone; co-tutors: Paolo Mazzoleni, Giuseppe Cultrone (University of Catania)

New materials have been developed for the restoration of ceramics using the products of alkaline activation of industrial ceramic waste. These new materials are designed as eco-sustainable alternatives to traditional cements and ceramics.



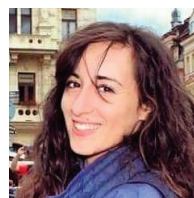
Erwin Schettino

Consejo Superior de Investigaciones Científicas – Universidad de Granada, Spain

THESIS: *Active Components of the Subcontinental Lithospheric Mantle for Crustal Metallogenic Endowment in Off-Craton Regions*

TUTOR: Claudio Marchesi (Universidad de Granada); co-tutor: José María González-Jiménez (Consejo Superior de Investigaciones Científicas) (CSIC - Universidad de Granada)

High-resolution characterization of sulfide-hosted galena nano-inclusions in mantle xenoliths and lamproite dykes from southeast Spain documented a previously unreported liquid immiscibility between Fe-Ni-Cu sulfide liquid and Pb(-Cu)-rich nano-melts persisting throughout the lithospheric-scale magma route, at odds with expected solubility and equilibrium partitioning models between sulfides liquid and silicate magmas.



Serena Dominijanni

Istituto di Geologia Ambientale e Geoingegneria (IGAG)- CNR, Italy

THESIS: *Physicochemical properties of Fe-bearing minerals and metal alloys at deep Earth conditions*

SUPERVISOR: Dr Catherine A. McCammon (BGI, University of Bayreuth, Germany)

The study intersects the following scientific themes in the field of experimental petrology and mineral physics: i) calibrating an oxybarometer for diamond anvil cell experiments to probe the volatile transport in the deep mantle; ii) examining the ferric iron content in super-deep natural and synthetic ferropericlase to shade light on the redox mechanisms of diamond formation; and iii) investigating the effect of light elements on the elastic properties (i.e., sound velocities and density) of iron alloys at Earth's inner core conditions to provide new constraints on Earth's core composition.



Geology for a sustainable management of our Planet

Bari 3-5 settembre 2024