



Swiss Geological Society

<https://geolsoc.ch>

The future of geosciences lies in the hands of young researchers that explore new ways of improving our understanding how our planet evolved in space and time. The winners of the Niggli Medal and the Best Master Prize in 2024 made significant advances in high-precision geochronology (Dawid Szymanowski) and in the determination of pressure–temperature conditions in the Earth's interior (Philip Hartmeier) that will pave the way to achieving this goal by complementing established techniques with emerging methods.

The “Best Master’s Thesis Award” from the Swiss Geological Society and the “Paul Niggli Medal” are two prizes that are awarded annually during the Swiss Geoscience Meeting. The Swiss Geoscience meeting was held in Basel on the 8th and 9th of November, 2024. Since the 100th birthday of Paul Niggli in 1988, the “Paul Niggli Medal” has been awarded by the Paul Niggli Foundation. This medal is Switzerland’s most prestigious “young scientist award” in earth sciences; it is open to researchers that are up to 35 years old or have received their doctorate in the last 6 years, and work in the field of mineralogy, geochemistry, petrology, resource geology, or solid-earth geophysics. For further information, see the awards page on the SGS website at <https://geolsoc.ch/en/awards/>.

Below are short citations of the awardees. The committees of the two awards are looking forward to again receiving nominations of outstanding young scientists for these prizes.

With best wishes,

Jörg Hermann

President of the Swiss Geological Society

DAWID SZYMANOWSKI RECEIVES THE 2024 PAUL NIGGLI MEDAL

The Board of the Paul Niggli Foundation decided, in their annual meeting on 6 June 2024, to award the Paul Niggli Medal for the year 2024 to **Dawid Szymanowski** in recognition of his outstanding research using high-precision geochronology, geochemistry, and petrology to understand the processes leading to giant volcanic eruptions and ore deposits.

Maria Schönbächler (ETH Zürich)

On behalf of the Foundation Council of the Paul Niggli Stiftung



Dawid Szymanowski

The Paul Niggli Medal is Switzerland’s most prestigious award for young earth scientists who have made outstanding contributions in the research fields of mineralogy, geochemistry, petrology, resource geology, or solid-earth geophysics. The Paul Niggli Medal honours and supports young ambassadors of Swiss geoscience, who are either Swiss citizens or obtained at least two of their academic degrees in the Swiss university system (BSc or MSc and usually their PhD).

The laudation from Prof. Dr. Olivier Bachmann (ETH Zürich, Switzerland) and the response of Dr. Dawid Szymanowski (ETH Zürich, Switzerland) can be found in volume 118 of the Swiss Journal of Geosciences, and is freely available at <https://sjg.springeropen.com/articles/10.1186/s00015-024-00477-0>.

2022 BEST THESIS AWARD

The winner of the 2024 Best Thesis Award from the Swiss Geological Society is **Philip Hartmeier** from the University of Bern for the work:

“Machine learning thermobarometry in metamorphic petrology: Calibration strategy and application to biotite”

The committee was impressed by the linking of advanced computational methods, such as machine learning using a neural network, with large data sets of mineral chemistry of biotite and metamorphic petrology to pave a new way to perform thermobarometry in metamorphic rocks. The work was conducted under the supervision of Prof. Pierre Lanari and Dr. Jacob Forshaw. Philip has provided a working thermometer for single minerals. He selected the mineral target (biotite), independently optimized the training strategy by incorporating transfer learning, and independently developed the testing strategy. The approach proposed by Philip is innovative and will have a major impact on the community as it can be applied to other minerals. The study shows that neural networks with transfer learning can have wide applications to solve problems in petrology.



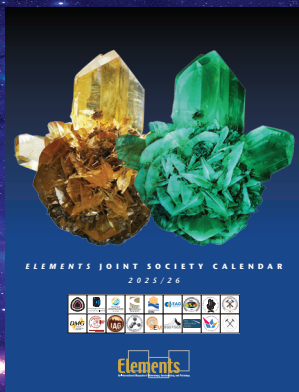
Philip Hartmeier

Jörg Hermann (SGS president)

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