

## About the School:

How can one determine movement of water masses in the ocean or air masses in the atmosphere? Where do findings from crime scenes originate from, what is the origin of a radioactive sample, or how old is a meteorite? Where did the ice man (Ötzi) spend his youth and where did he travel? Isotope analysis provides answers. The school treats chemical and physical basics as well as edge of technology developments of ever more sensitive and selective



methods to analyze stable and radioactive isotopes, such as SIMS, RIMS, ICP QQQ MS, AMS and more. Isotope analysis can help to identify the origin of food and beverages, the most prominent example being certification of extremely expensive high-quality wines. Come to Bad Honnef to the famous wine growing region at the Rhine valley to learn how to test (and taste).



## Organisation:

### Program Committee:

- |                      |   |
|----------------------|---|
| Prof. Dr. C. Walther | Institute of Radioecology and Radiation Protection<br>Leibniz University Hannover |
| Prof. Dr. K. Wendt   | Institute for Physics<br>Johannes Gutenberg University Mainz                      |
| Prof. Dr. T. Reich   | Institute of Nuclear Chemistry<br>Johannes Gutenberg University Mainz             |



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# Isotope analysis for environmental sciences and nuclear forensics


## A SOLARIS Summer School



Physikzentrum  
Bad Honnef  
Germany

August 11<sup>th</sup> – 15<sup>th</sup> 2024

## This School is intended for:



English speaking BSc, MSc & PhD students, as well as post-docs in the field of physics, chemistry, ultra-trace detection and life sciences.

The school will give an overview of the historic developments of isotope analysis and its modern applications. Isotope analyses requires techniques of ultimate sensitivity, selectivity and – in some cases, spatial resolution on the nm scale.

Topics cover oceanographic sciences, cosmochemistry, nuclear forensics and many more making use of ultra-trace analysis techniques including AMS, ToF-SIMS and RIMS

Speakers are amongst others

Prof. Ingo Leya (Univ. Bern)

Prof. Rolf Michel (Leibniz Univ. Hannover)

Prof. Jixin Qiao (DTU Copenhagen)

Dr. Francesca Quinto (KIT)

Prof. Hideki Tomita (Univ. Nagoya)

Dr. Maria Wallenius (JRC)

## Venue:

The Physics School will take place at the Physikzentrum Bad Honnef. This facility is run by the Deutsche Physikalische Gesellschaft (DPG).

Bad Honnef is a spa town in Germany near Bonn in the Rhein-Sieg district, North-Rhine-Westphalia, and is situated at the east shore of the river Rhine, a few kilometers south of Bonn.



It is tradition at the Physikzentrum Bad Honnef that all participants and the course instructors stay in the same building where they also have their meals together in order to encourage the exchange of information between participants and instructors.

Physikzentrum Bad Honnef  
Hauptstraße 5,  
53604 Bad Honnef, Germany

## Contact and Registration

The deadline for registration is 15<sup>th</sup> June 2024. Soon registration will be possible by visiting <https://www.irs.uni-hannover.de/de/solaris-summer-school> or by using the QR-code



There is no participation fee for the school. Prices for full board accommodation are 90€ per person and night in a single room and 70€ per person and night in a shared double room. A limited number of travel grants are available upon request.

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