







General Info

Organized by: University of Salento

Name of the Advanced School

Advanced accelerator mass spectrometry fundamentals and application

Objective and learning goals

The school will provide lectures, case discussions, practical sessions, and live demonstration sessions at the BAMS (Bio-Accelerator Mass Spectrometry) system of the University of Salento. Aim of the school is to provide the basic aspects of accelerator mass spectrometry both in terms of sample processing, instrumental management and operation, data analysis and interpretation. Particular emphasis will be given to the study of the application of AMS in biomedical and pharmaceutical research.

Subject/scientific programme

The school will be divided into theoretical, class lectures and hand-on activities. The following different modules are scheduled:

- Basics of AMS: principles
- Main components of an AMS system: ion sources, magnetic and electrostatic analyzers, high resolution mass spectrometers, particle accelerators
- Radiocarbon and applications in biomedical studies
- Data analysis and interpretation
- Operation and management of an AMS spectrometer

Methods of carrying out the lessons

The school is organized into theoretical lessons and hand-on activities.

Teachers

The lectures will be given by experts in the field from both research institutions, instrument manufacturers and application specialists.

Duration

The duration of the school is five days over one week.

Dates

To be defined, approximately early 2025 (January/February).

Lesson times

The lectures will be structured into morning and afternoon sessions typically lasting four hours each.

Location

The lectures will be organized in Lecce and in the premises of the CEDAD (Centre of Applied Physics, Dating and Diagnostics) at the Department of Mathematics and Physics, University of Salento.

Admission requirements

The admission to the school will be open to persons at different stages of education including graduate, postgraduate, Ph.D. students and post-doc researchers.

Recruitment of participants

The school will be open to ten students who will be selected by a selection committee according to the criteria specified in the call for applications.

Documentation to be submitted

The documentation to be submitted will be specified in the call for applications once it has been published.











Evaluation of participants

Participants will be selected taking into account their CV, cultural background, scientific skills and a motivational letter which will be requested.

Certificate of attendance

A certificate of attendance will be delivered at the end of the school for those students who pass a final exam.

Other information

For further information on participation in the school, please refer to the call for applications as soon as published.

Contact person:

Prof. Dr. Gianluca Quarta, University of Salento, gianluca.quarta@unisalento.it

