

Joint ICTP-IAEA Advanced Workshop on Accelerator Mass Spectrometry Radiocarbon Dating for Heritage and Forensic Sciences



IAEA

International Atomic Energy Agency
Atoms for Peace and Development

22 - 26 May 2023

An ICTP-IAEA in person workshop
Trieste, Italy

Further information:

<http://indico.ictp.it/event/10173/smr3839@ictp.it>

Accelerator Mass Spectrometry radiocarbon dating is especially useful to determine the age of objects and their chronology over the past 55,000 years. This technique is routinely used for dating of both cultural and natural heritage materials and is successfully applied for forensic cases.

Description:

The workshop will provide an advanced training and information exchange platform. The workshop seeks to review the state-of-the-art in the area of analysis with the emphasis on the newest development and trends. Novel applications, guidelines, protocols to improve radiocarbon dating will be presented. Several case studies in the field of heritage and forensic sciences will be discussed.

The recently published IAEA e-learning on radiocarbon dating technique is available: <https://elearning.iaea.org/m2/course/view.php?id=1499>

A poster session will be organised to present and discuss the participants' research results.

The workshop is open both for young and experienced scientists, archaeologists, curators, forensic experts/law-enforcement actors, and policy makers interested in this quickly evolving subject.

Topics:

- State of the Art of accelerator mass spectrometry radiocarbon dating
- Sample preparation and chemistry for radiocarbon dating
- Analysis and interpretation of the radiocarbon data
- Case studies on radiocarbon dating in heritage science: paintings, pigments, organic dyes, mortars, iron artifacts, rock art and natural landscape
- Case studies on radiocarbon dating in forensic science for authentication, detecting illicit trade and police cases: art objects, documents, food, medicine, wildlife, soft tissue, forensic anthropology
- Future trends, ethical considerations, scientific challenges and possible solutions.

Directors:

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Local Organiser:

R. KAISER, ICTP, Italy

Speakers:

L. CALCAGNILE, CEDAD, University of Salento, Italy
E. DELQUE-KOLIC, LMC14, University Paris-Saclay, France
M. FEDI, INFN, Italy
I. HAJDAS, ETH Zürich, Switzerland
M. HUELS, University of Kiel, Germany
F. MARZAIOLI, Università degli Studi della Campania "Luigi Vanvitelli", Italy
M. MOLNAR, ATOMKI-HAS, Hungary
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Collaboration with the IAEA-ANSTO Collaborating Centre on "New and Advanced Techniques and Applications of Nuclear Science and Technology Towards a Sustainable Environment" and IAEA-University of Paris-Saclay Collaborating Centre on "Atoms for Heritage" is acknowledged.

How to apply:

Online application:
<http://indico.ictp.it/event/10173/>

Female scientists are encouraged to apply.

Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

Deadline:

15 March 2023



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