



The Abdus Salam
**International Centre
for Theoretical Physics**



1st Mesoamerican Workshop on Reconfigurable X-ray Scientific Instrumentation for Cultural Heritage

Description:

Cultural heritage studies are essential for preserving the rich and diverse artifacts of Latin America. However, conventional X-ray analytical instruments used to study historical samples are often specialized and expensive. Reconfigurable instrumentation presents a cost-effective alternative, reducing the need for multiple dedicated devices.

MORE INFORMATION:

This workshop aims to foster an environment for exchanging innovative ideas and promoting effective collaboration, ultimately advancing cultural heritage studies in Latin America. This is particularly significant in the Mesoamerican region, given its vital role in preserving indigenous knowledge and the legacies of diverse cultures. By offering participants hands-on experience with affordable, reconfigurable modular hardware and sensors, the workshop seeks to enhance their skills and cultivate human resources capable of driving technological advancements, the development of scientific instrumentation, and academic progress. During the intensive five-day workshop, participants will engage with software design tools, FPGA based hardware platforms, and sensors, through tutorials and guided lab sessions.

TOPICS:

- X-ray analytical methods: fluorescence (XRF), diffraction (XRD), micro-computed tomography (μ CT)
- X-ray sources and detectors
- Portable XRF scanner for in-situ measurements
- Elemental map reconstruction techniques and data analysis
- Reconfigurable instrumentation: systems-on-chip (SoC-FPGA) and their applications to cultural heritage

ORGANIZING COMMITTEE:

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16 - 20 June 2025



Antigua Guatemala - Guatemala



**Deadline:
6 April 2025**

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FURTHER INFORMATION:

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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.

