## SR2A 2023 –10th International Conference on Synchrotron Radiation and Neutrons in Art and Archaeology





Contribution ID: 57 Type: Invited talk

## **Keynote Speech #1: How neutrons provide new insights into cultural heritage objects**

Tuesday, November 21, 2023 10:00 AM (35 minutes)

In this presentation I will highlight the non-destructive techniques offered by neutrons providing unique information about archaeological objects on selected examples. Neutron tomography is largely complementary to X-ray CT with remarkably high penetration of metals and excellent sensitivity for organic materials. It has e.g. been used to elucidate manufacturing techniques used to produce ancient swords or helmets or to identify hidden artifacts within statues. Neutron-based analytical techniques have been used to analyze trace amounts of chlorine in the corrosion products of iron and bronze artefacts, while the elemental composition, especially the trace element contents is used in provenance investigations of ceramics, etc.

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Session Classification: Alteration & Conservation 1