Measurement and Application of Computed Tomography Technology in Wood

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Message from the Guest Editors

Dear Colleagues,

Archaeological wood holds or provides access to unique and essential information for cultural heritage research in terms of past procedures, technologies, and environments. Wooden artefacts, however, are commonly degraded, strongly distorting their anatomical structure; therefore, there is a demand for advanced analysis methods able to reveal the historical information encoded in them. Computed tomography (CT) has emerged as an essential tool for the non-destructive three-dimensional (3D) analysis of the microstructure of archaeological wood. The interaction of the incoming beam (e.g., X-rays, neutrons) with the atoms produced can be imaged using radiographies and tomograms, i.e., internal 3D views, providing relevant imaging data for a fully quantitative characterisation of the material's microstructure and the dynamic processes occurring within it.

This Special Issue potential topics include, but are not limited to, the following:

- Conventional X-ray, synchrotron and neutron CT imaging
- Image-based and statistical method developments
- Assessing conservation methods
- Tree ring and morphology analysis
- Hardware/software development

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Special Issue

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