



Contribution ID: 51

Type: Poster

## Micro-Computed Tomography beamline: micron size spatial resolution imaging

Non-destructive 3D X-ray tomography imaging is an important technique for sample characterization in a variety of research domains such as for many biological and materials-science applications, as it can reveal intricate internal details without damaging the sample. The Micro-Computed Tomography (MCT) beamline, the first new beamline of the BRIGHT program to be constructed at the Australian Synchrotron will deliver high-performance 3D X-ray tomography imaging with numerous advantages in comparison with laboratory-based X-ray sources. The source is a bending-magnet and is operating in the X-ray energy range from 8 to 40 keV. Several imaging modes will be offered such as various X-ray phase-contrast modalities (propagation-based, grating-based and speckle-based), in addition to conventional absorption-contrast. MCT will extend the capability for higher spatial resolution X-ray imaging/tomography and will use commensurately smaller samples, making it complementary to the existing Imaging and Medical Beamline (IMBL). An update on the progress of the MCT project in delivering high spatial resolution imaging (in the order of micron size) will be presented in detail with some imaging results from the hot-commissioning phase.

### Level of Expertise

Experience Researcher

### Presenter Gender

Woman

### Pronouns

### Do you intend to attend UM2022

In person - Melbourne

### Students Only - if available would you be interested in student travel funding

### Students Only –Do you wish to take part in the Student Poster Slam

Terms and conditions (Please confirm that you have read all the requirements and agree to the conditions)

Yes

Primary authors: ARHATARI, Benedicta (Australian Synchrotron); STEVENSON, Andrew (Australian Synchrotron); FIALA, Tom (Australian Synchrotron); AFSHAR, Nader (ANSTO, Australian Synchrotron); OZBILGEN, Sinem (Australian Synchrotron); TISSAINAYAGAM, Prithi (Australian Synchrotron); WALSH, Adam (Australian Synchrotron); RUBEN, Gary (Australian Synchrotron); THOMPSON, Darren (CSIRO); MUDIE, Stephen (ANSTO)

Presenter: ARHATARI, Benedicta (Australian Synchrotron)

Session Classification: Poster

Track Classification: Manufacturing, Engineering & Cultural Heritage