



Contribution ID: 4

Type: **not specified**

Maths highlight - Reducing acquisition and dose in spectral imaging

Thursday, 19 June 2025 11:00 (20 minutes)

Speakers: Maike Meier & Lorenzo Lazzarino

Join via Zoom: <https://ukri.zoom.us/j/92256378528>

Spectro-microscopy is an experimental technique used to understand differences in chemical state across a sample. This can, for example, be used to understand changes variations across a battery material, corrosion near an an interface or the location ad state of drugs within a cell.

While this is a powerful method, the technique is often limited by factors such as long acquisition times and radiation damage. Here we present two data driven measurement strategies that exploit properties of the experimental data to significantly shorten experiment times and doses applied, in some cases reducing the amount of data required for a measurement to less than 5% of a conventional measurement.