Contribution ID: **59** Type: **Poster Presentation**

Optimising Muon Experiments Using Fisher Information

One of the key challenges in performing experiments is knowing which temperatures and applied fields to measure at, and how many statistics should be measured at each temperature/field combination. We have recently developed a technique which uses Fisher information which, for a given muon asymmetry function, can analytically calculate the number of muon statistics required to have an error of a given amount on the parameters of the asymmetry model. In this poster, we report the latest results of our project, in particular applying our methodology to the problem of knowing the best choice of applied longitudinal fields for ionic diffusion experiments.

Email

john.wilkinson@stfc.ac.uk

Funding Agency

STFC

Supervisors Name

Supervisors Email

Did you request an Invitation Letter for a Visitors Visa Application

No

Primary author: Mr SAMPSON, Alexander (Science & Technology Facilities Council)

Co-authors: WILKINSON, John (ISIS Neutron and Muon Source); Dr WILKINS, Lucas (Science & Technology Facilities Council)

Presenter: WILKINSON, John (ISIS Neutron and Muon Source)

Session Classification: Poster Session 1

Track Classification: Beamlines and instruments