

Department of Physics

Particle Physics

The Denys Wilkinson Building, Keble Road, Oxford OX1 3RH



Experimental Particle Physics Seminar

at 2.15 pm

Dennis Sciama Lecture Theatre

Tuesday 5th February 2019

Dr Jens Dopke

Rutherford Appleton Laboratory

Reading charcoal: Using HEP detectors to decipher papirii

Abstract

I will introduce the problem of reading ancient documents, in this particular project working on reconstruction of text from scrolls found in Herculaneum near Mt. Vesuvius. These are made from papyrus and have been written on using organic inks. After the eruption of Mt. Vesuvius in 79 AD, these have been slow-cooked under exclusion of oxygen, and hence turned into lumps of charcoal. All attempts of unrolling these subjects have been destructive.

First indications show that dark-field x-ray imaging allows to make the ink of these documents visible and there is good hope that this assumption holds for multi-layered documents that cannot be unrolled. I will introduce dark-field x-ray imaging, report on where we are with the project, what's lacking at the moment and where we plan to get to within the next year(s).