



Contribution ID: 108

Type: Oral

Spectroscopic Systems: From research to applications

Tuesday, 17 May 2022 10:00 (45 minutes)

H C Boston, on behalf of the Nuclear Physics Group, Department of Physics, University of Liverpool, UK

The University of Liverpool Nuclear Physics research group has been involved in studying the structure of the nucleus at the frontiers of nuclear stability since its inception. To compliment these studies, and to push the boundaries of our knowledge we have been forefront at designing and implementing arrays to be used by the Nuclear Physics community.

The evolution of radioactive ion-beam facilities has necessitated a step change in both the sensitivity of the nuclear instrumentation and in the data analysis techniques used in these challenging experiments and campaigns to study novel and exciting nuclear phenomena.

The detection of gamma radiation is at the heart of nuclear structure physics experiments and is key to the success of many industrial and medical applications involving gamma ray imaging. Projects such as the Advanced Gamma Tracking Array (AGATA) in Europe and the Gamma-ray Energy Tracking Array (GRETA) in the United States have pushed the technical boundaries needed to realise spectrometers capable of measuring nuclei far from stability.

This presentation will focus on how the technology designed for Nuclear Physics experiments has found application in areas outside of the core physics programme. Sensors developed for Medical, Security, Environmental and Nuclear imaging systems will be presented and discussed.

Primary author: BOSTON, Helen (University of Liverpool)

Presenter: BOSTON, Helen (University of Liverpool)

Session Classification: Environmental Applications