



Contribution ID: 45

Type: **Oral**

Exploring the extremes with NUSTAR@FAIR

Tuesday, 26 October 2021 10:00 (30 minutes)

The upcoming FAIR facility in Darmstadt, Germany, will produce intense high-energy beams of exotic nuclei which will be used to explore the properties of new regions of the chart of nuclides of key importance for the investigation of nuclear structure and reactions, and nuclear astrophysics. Several experiments have been planned with the aim of addressing the scientific challenges. These experiments use a variety of techniques to answer the fundamental questions in the field. They are brought together in the NUSTAR1 (NUclear STructure Astrophysics and Reactions) collaboration which maximizes the synergy amongst the sub-collaborations performing various experiments. With more than 600 scientists from more than 180 institutes located in 38 countries, the collaboration is well advanced and ready with the state-of-the-art instrumentation to start the measurements using the FAIR infrastructure in the next few years. Measurements are already being performed with detectors developed for FAIR and beams delivered by the present accelerators.

The physics case and challenges for all the NUSTAR experiments will be briefly discussed in this presentation.

1) <http://www.fair-center.eu/for-users/experiments/nustar.html>

Primary author: KALANTAR-NAYESTANAKI, Nasser (ESRIG, University of Groningen, Groningen, The Netherlands)

Presenter: KALANTAR-NAYESTANAKI, Nasser (ESRIG, University of Groningen, Groningen, The Netherlands)

Session Classification: Session 4