



Contribution ID: 59

Type: **Invited Talk**

Experimental Aspects of Hyperon-Nucleon interactions

Tuesday, 14 September 2021 16:50 (20 minutes)

Understanding the nucleon-nucleon and the hyperon-nucleon interaction is essential in obtaining a comprehensive picture of the strong interaction. The former has been extensively studied in the past decades, whereas details of the interaction involving strangeness degrees of freedom is very sparse. This is partly attributed to difficulties performing high-precision scattering experiments with hyperons, which decay quickly. Hyperons are expected to play a key role in the composition of Neutron stars, and obtaining constraints on the fundamental two (and three) body forces between hyperons and nucleons will allow us to better understand the key properties of neutron stars. Recent advancements in accelerator and detector technologies allow us to perform detailed studies of this interaction utilising final state interactions in exclusive hyperon photoproduction experiments. In this talk, I will provide an overview of the experimental programme carried out at Thomas Jefferson accelerator facility for studying the hyperon-nucleon interaction.

Presenter: ZACHARIOU, Nicholas (University of York)

Session Classification: Oral Presentations