



Contribution ID: 577

Type: **Parallel talk**

## **Nuclear Astrophysics Masterclasses - A Journey through the Elements**

*Thursday 31 August 2023 14:30 (15 minutes)*

Masterclasses are one-day outreach events for high school students, introducing them to topics of current research. Within the framework of the EU project ChETEC-INFRA, Masterclasses on Nuclear Astrophysics have been developed. This interdisciplinary field of science provides a new didactic perspective on nuclear and astrophysical processes by addressing the link between these two subjects. The Nuclear Astrophysics Masterclasses pick up this didactic potential. They include the analysis of measurement data from nuclear reactions studied at the Felsenkeller underground ion accelerator Laboratory in Dresden, Germany. Furthermore, the processes behind the formation of the chemical elements - from primordial nucleosynthesis to s- and r-processes - are reconstructed with the help of various gamification elements as well as hands-on activities like astronomical spectroscopy. The talk will present the teaching materials, the didactic concept and the experiences made so far in the implementation of the Masterclasses.

### **Submitted on behalf of a Collaboration?**

Yes

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**Session Classification:** Outreach and Education

**Track Classification:** Outreach and Education