



Contribution ID: 252

Type: **Oral Contribution**

## Using an active target time projection chamber to study reactions of astrophysical interest.

*Tuesday, 25 October 2022 15:50 (20 minutes)*

Active Targets are a choice in low-energy nuclear physics when luminosity and high detection efficiency are needed. When combined with a solenoid magnet, their energy dynamic range and particle identification capabilities are greatly enhanced. The Active Target Time Projection Chamber (AT-TPC) of the FRIB is one such detector, a powerful tool to investigate direct and resonant reactions where the excitation function has to be measured continuously with high precision. As an example,  $^{22}\text{Mg}(\alpha, p)$  at low bombarding energies was measured. This is first direct measurement of this reaction that plays a key role for Type-I X-ray burst (XRB) light curves. In this talk I will introduce the Active Target technique and I will present the results obtained in this experiment and future possibilities.

**Presenter:** BECEIRO NOVO, Saul (Universidade da Coruña)

**Session Classification:** P3 Nuclear Astrophysics