



Contribution ID: 337

Type: poster

## Calibration of Silicon Drift Detectors for the SIDDHARTA-2 Experiment

*Tuesday, 12 July 2022 10:17 (2 minutes)*

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The main aim of the SIDDHARTA-2 experiment at the DAΦNE collider in the LNF-INFN (Italy) is to perform the high precision measurement of the kaonic deuterium exotic atom, which is formed when a negatively charged kaon ( $K^-$ ) is captured in a highly atomic excited state, replacing an electron [1,2].

To achieve this goal, a large area Silicon Drift Detectors (SDDs) system has been developed by the SIDDHARTA-2 Collaboration [3]. The energy response of each detector should be calibrated and monitored to reduce the systematic error (to the level of 2-3 eV).

The poster will present a calibration method for the SIDDHARTA-2 setup [4], which should guarantee high precision spectroscopic performances of the system during the data taking.

- [1] M. Miliucci et al., *Il Nuovo Cimento* 44 C (2021) 152.
- [2] C. Curceanu et al., *Few-Body Syst.* 62 (2021) 83.
- [3] M. Miliucci et al., *Meas. Sci. Technol.* 32 (2021) 095501.
- [4] F. Sgaramella et al., *arXiv:2201.12101* (2022).

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**Session Classification:** Poster session & Coffee & Conference photo I