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# High precision X-ray spectroscopy at the DAΦNE collider: with SIDDHARTA-2 experiment

*Monday 1 July 2024 15:00 (30 minutes)*

High-precision X-ray spectroscopy of light kaonic atoms serves as a crucial method for exploring into low-energy QCD within the strangeness sector, allowing the determination of the antikaon-nucleon interaction at threshold without the need of extrapolation to zero energy The SIDDHARTA-2 collaboration is currently engaged in the complex task of measuring kaonic deuterium transitions to its fundamental level at the DAΦNE collider of the INFN-LNF, with the measurement underway. In pursuit of this goal, the collaboration has designed and built an experimental setup, taking advantage of the optimized veto systems for the background rejection and a new Silicon Drift Detectors system able to operate in the high background environment of the DAΦNE collider. The contribution presents the experimental apparatus and the results obtained during the preparation phase for the kaonic deuterium run.

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