

# Latest Developments of the CAST-CAPP/IBS Detector Project at CERN

*Thursday 18 May 2017 11:00 (10 minutes)*

Lino Miceli Presenting for the CAST Collaboration and external collaborators

In 2016, the CAST-CAPP/IBS Detector, a joint effort between the CERN Axion Solar Telescope (CAST) collaboration [1] and the Center for Axion and Precision Physics Research (CAPP/IBS) [2], demonstrated for the first time that a cold DM axion search with the haloscope [3] technique is feasible in a large dipole magnet. The project is now moving towards the installation and operation of multiple rectangular cavities inside one of the bores of the CAST magnet, with the goal of reaching significant sensitivity at an axion mass of  $\sim 23 \mu\text{eV}$ .

Progress towards this new phase of the project will be reported.

[1] CAST Collaboration, K. Zioutas et al., *Phy. Rev. Lett.* 94 (2005) 121301.

[2] [http://capp.ibs.re.kr/html/capp\\_en/](http://capp.ibs.re.kr/html/capp_en/)

[3] P. Sikivie, *Phys. Rev. Lett.* 51, 1415 (1983).

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