



Contribution ID: 227

Type: Talk

## **【338】 muCool: Development of a novel high-brightness low-energy muon beamline**

*Thursday 24 August 2017 12:30 (15 minutes)*

The next generation of experiments with muons requires high-quality muon beams. We are developing a device that reduces the phase space of a standard  $\mu^+$  beam by a factor of  $10^{10}$  with  $10^{-3}$  efficiency. The phase space compression is achieved by stopping  $\mu^+$  in cryogenic helium gas with density gradients and applying strong electric and magnetic fields. Several aspects of this device have already been tested. The measurements show that we can achieve efficient muon beam compression, as predicted by the simulations.

*This work is supported by SNF grant 200020\_172639.*

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**Session Classification:** Nuclear, Particle-and Astrophysics (TASK-FAKT)

**Track Classification:** Nuclear, Particle- and Astrophysics (TASK - FAKT)