



Contribution ID: 17

Type: **Talk**

[208] High Intensity Muon Beam (HiMB): how to improve the most intense muon beam in the world

Monday 27 June 2022 18:15 (15 minutes)

Currently PSI delivers the most intense continuous muon beam in the world with up to few $10^8 \mu^+/s$. The High Intensity Muon Beam (HiMB) project aims at developing a new target station and muon beam lines able to deliver up to $10^{10} \mu^+/s$, with a huge impact for low-energy, high-precision muon based searches.

This is done by boosting the surface muon production efficiency with a new target geometry and increasing capture and transmission with a solenoid-based beam line. The latter affects also the rates of the other particles produced at target making the beam lines suited also for non-surface muon beams. We present the current status of the HiMB project.

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Session Classification: Applied Physics and Plasma Physics

Track Classification: Applied Physics and Plasma Physics