



EP Seminar

SPEAKER: Oleg Brandt (Ruprecht-Karls-Universitaet Heidelberg (DE))

TITLE: **Top quark mass measurements: how precise does it get?**

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PLACE: Council Chamber

ABSTRACT

The mass of the top quark is a fundamental parameter of the Standard Model and has to be determined experimentally. Its precise knowledge can be used to constrain new physics models or to check the internal consistency of the Standard Model. Dramatic improvements in experimental techniques over the last years allowed to achieve an unprecedented uncertainty of below 0.5%. In this talk, I present a legacy measurement of the top quark mass performed in lepton+jets final states using the full dataset of proton-antiproton collisions recorded by the DZero detector in Run II at the Tevatron collider, which achieves a relative precision of 0.43%, and outline the perspectives for future improvements at the LHC.