

# Fitting the strong coupling constant for soft-drop thrust

*Monday, 15 July 2019 15:40 (20 minutes)*

Over the years many different types of fits for the strong coupling constant have been performed. However one type of high precision result that currently significantly differs from the world average are results from event shapes at electron positron colliders. One possible source for the difference in these results could be the degeneracy between the fit of the strong coupling constant and non-perturbative parameters. In this talk I will explore the application of modern jet substructure techniques, specifically soft drop, in order to break the impact of the non-perturbative corrections on the fit of the strong coupling constant.

**Primary author:** THEEUWES, Vincent (University of Goettingen)

**Co-authors:** REICHELT, Daniel (University of Goettingen); SOYEZ, Gregory (CEA Saclay); Dr MARZANI, Simone (Università di Genova & INFN Genova); SCHUMANN, Steffen (University of Goettingen)

**Presenter:** THEEUWES, Vincent (University of Goettingen)

**Session Classification:** Jets/Sub/Res

**Track Classification:** Jets/Substructure/Resummation