



Contribution ID: 537

Type: **Parallel session talk**

## The global electroweak fit in the SM and SMEFT

*Wednesday 23 August 2023 10:10 (20 minutes)*

Duration” 15’+5’

We present results from the global electroweak fit to precision measurements of the Standard Model (SM). The fit uses the latest experimental results as well as up-to-date theoretical calculations for observables on the Z pole and the W boson mass, yielding precise SM predictions for the effective weak mixing angle and the masses of the W and Higgs bosons, as well as the top quark. We report constraints on coefficients of the SM effective field theory (SMEFT), obtained from electroweak precision data. We present correlations between the SMEFT coefficients, evaluated at next-to-leading order for the precision observables entering the fit, and the free parameters of the SM.

### Collaboration / Activity

Gfitter group

**Primary authors:** HOECKER, Andreas (CERN); HALLER, Johannes (Institut für Experimentalphysik, Universität Hamburg); STELZER, Jörg (CERN); MOENIG, Klaus (DESY); KOGLER, Roman (DESY); FISCHER, Yannick (Universität Hamburg)

**Presenter:** FISCHER, Yannick (Universität Hamburg)

**Session Classification:** T07 Top and Electroweak Physics

**Track Classification:** Top and Electroweak Physics