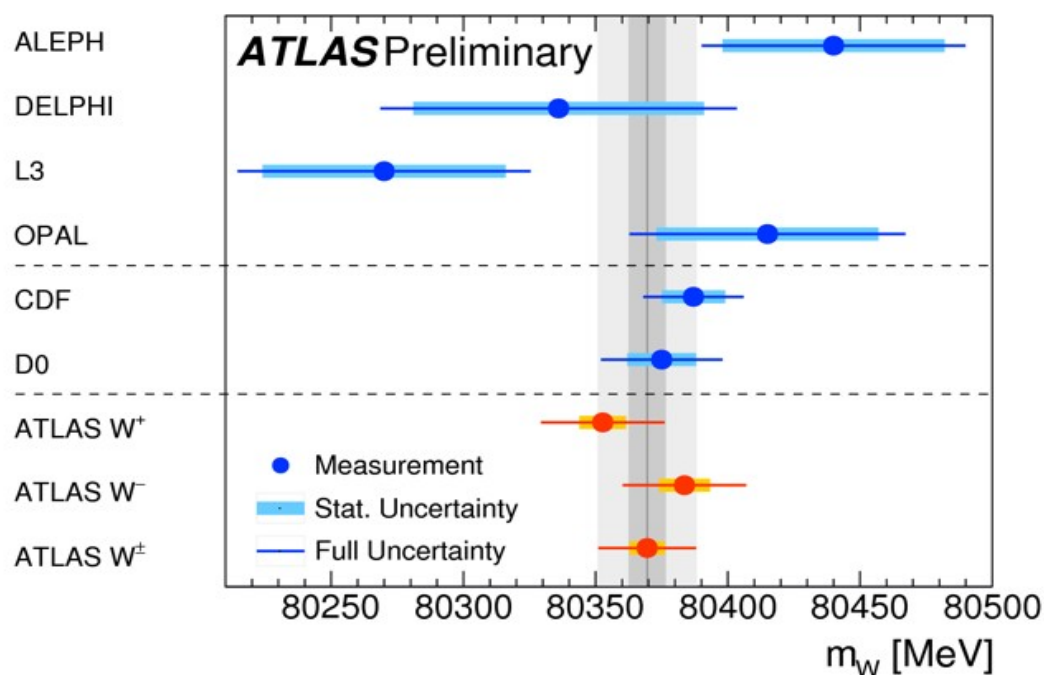




# W Boson Mass Measurements.

**Matthias Schott (Univ. Mainz)**

**Tuesday, 24 January 2017, 16:45 h, DESY Auditorium**



The ATLAS collaboration recently presented a measurement of the W-boson mass, based on proton-proton collision data recorded in 2011 at a centre-of-mass energy of 7 TeV. The W-boson mass was determined using template fits to the charged lepton transverse momentum distributions as well as the transverse mass distribution. The final result reaches the precision of 19 MeV, equivalent to the current best single measurements.

In the talk, the measurements as well as its implications on the understanding of the Standard Model will be presented. Special emphasis will be placed on the evaluation of the experimental systematic uncertainties, as well as on the uncertainties due to the modeling of the vector boson production and decay. In addition, the ATLAS measurement will be put in context to previous measurements at the Tevatron Collider.

- **Coffee, tea and cookies will be served at 16:30h**
- **After the seminar there is a chance for private discussions with the speaker over wine and pretzels**

