

# Realistic $SU(5)$ GUT with lower dimensional representations

*Monday 26 June 2023 14:40 (20 minutes)*

What is the minimal viable renormalizable  $SU(5)$  GUT with representations no higher than adjoints? In this talk I discuss a  $SU(5)$  model in which vectorlike fermions  $5_F + \bar{5}_F$  as well as two copies of  $15_H$  Higgs fields are introduced in order to accommodate for correct charged fermion and neutrino masses and to reproduce the matter-antimatter asymmetry of the universe. The presented model is highly predictive and will be fully tested by a combination of upcoming proton decay experiments as well as low energy experiments in search of flavor violations.

**Authors:** HINZE, Kevin; ANTUSCH, Stefan; SAAD, shaikh (University of Basel)

**Presenter:** HINZE, Kevin

**Session Classification:** Parallel

**Track Classification:** Particle