

Workshop on Grand Unified Theories: Phenomenology and Cosmology (GUTPC)

Contribution ID: 24

Type: **not specified**

Proton Decay and SU(5) Grand Unification

Tuesday, 9 April 2024 14:00 (30 minutes)

This talk will be an overview of the status of proton decay in SU(5) grand unification. After a brief history/review of grand unification and proton decay experiments, I will focus on the phenomenological impact of these coming proton decay experiments on a broad range of models. I will focus initially on several supersymmetric models such as minimal SU(5) (with various SUSY breaking scenarios), Missing Pattern Models, and Flipped SU(5) models. I will comment on how their proton decay signatures differ. Then, I will spend some time discussing what types of non-supersymmetric models are viable. I will finish by discussing a motivated grand unified theory which can explain the W-boson anomaly.

Presenter: Prof. EVANS, Jason (TDLI)

Session Classification: Plenary