



Contribution ID: 14

Type: **Short Talk (5')**

## **Alternative 3-3-1 models: a comprehensive analysis**

*Monday 28 November 2022 17:30 (5 minutes)*

We systematically review how anomaly-free 3-3-1 models, with and without exotic electric charges, can be constructed using as a basis closed sets of fermions that include each of the particles and antiparticles of all electrically charged fields. Our analysis reproduces not only the models known in the literature, but also shows the existence of several more independent models for one and three families not considered so far. A phenomenological analysis of the new models is performed, in which the lower bounds at 95% CL on the gauge boson masses are presented.

**Author:** GIRALDO USUGA, Yithsbey (Universidad de Nariño)

**Co-authors:** ROJAS, Eduardo; BENAVIDES, Richard; ANTONIO PONCE GUTIERREZ, WILLIAM

**Presenter:** GIRALDO USUGA, Yithsbey (Universidad de Nariño)

**Session Classification:** Theory and Phenomenology

**Track Classification:** Beyond the standard model