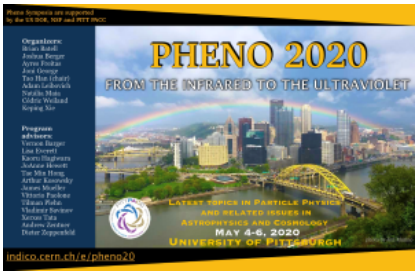

Contribution ID: **898** Type: **Parallel Talk**

A renormalizable model of gauged neutrino self-interactions and the Hubble tension

Tuesday, 5 May 2020 17:00 (15 minutes)

I will introduce arguably the simplest extension of the Standard Model which leads to renormalizable long-range vector-mediated neutrino self-interactions. This gives rise to four-neutrino intractions with a strength similar to what has been discussed to resolve the cosmological hubble tension, whithout conflicting with other data. The extended gauge and scalar sector leads to signatures in invisible Higgs and Z decays, unequivocally relating the Hubble tension to precision measurements at the LHC and future colliders. Furthermore, there are hidden neutrinos which can be in the correct mass and mixing range to resolve short baseline neutrino oscillation anomalies.

Summary

Hubble Tension

Primary authors: Dr TRAUTNER, Andreas; Mr BERBIG, Maximilian; Dr JANA, Sudip

Presenter: TRAUTNER, Andreas (BCTP, Bonn University)

Session Classification: Neutrinos III

Track Classification: Neutrinos