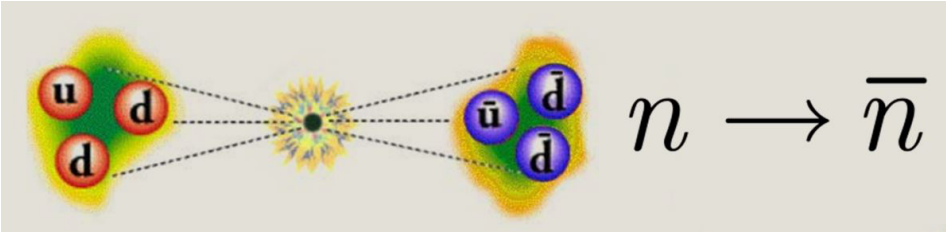

Contribution ID: **12** Type: **Oral Presentation**

Update on the post-sphaleron baryogenesis model prediction for neutron-antineutron oscillation time

Tuesday, August 4, 2020 1:00 PM (30 minutes)

Post-sphaleron baryogenesis (PSB) is an attractive low-scale mechanism to explain the observed matter-antimatter asymmetry of the Universe. The same \Delta B=2 operator that gives rise to baryogenesis in this scenario also leads to neutron-antineutron oscillation. We show that the PSB mechanism, when embedded in a quark-lepton unified model based on the Pati-Salam gauge group, leads to an absolute upper limit on the neutron-antineutron oscillation time, which might be within reach of future experiments. The multi-TeV-scale scalar diquarks in this model could also be searched for at the LHC and future hadron colliders.

Contribution Title

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