## Particle Physics on the Plains 2018



Contribution ID: 21

Type: not specified

## Galactic Dark Matter Population as the Source of Neutrino Masses

Sunday 14 October 2018 09:40 (20 minutes)

The extremely small but non-zero neutrino masses has no explanation in the Standard Model. We propose a new mechanism for neutrino mass generation, unrelated to the Higgs mechanism, in which neutrinos get their mass via long range interactions with dark matter. Our model predicts a location dependent neutrino mass and also implies that relic neutrinos are not present in galaxies due to having been repelled by the dark matter.

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