

# Phenomenology 2025 Symposium



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## Proton decay into light new particles

*Tuesday 20 May 2025 16:30 (15 minutes)*

Light new particles could be emitted in nucleon decays if they have baryon-number-violating couplings. Even though they usually leave the detector as missing energy, interesting signatures can arise in such decays in underground detectors such as Super-Kamiokande and DUNE. In the particularly simple case of light sterile neutrinos, nucleon decays can even be an efficient production mechanism that leads to characteristic displaced decay signatures.

### Mini Symposia (Invited Talks Only)

### Plenary (Invited talks only)

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**Session Classification:** Flavor

**Track Classification:** Quark and Lepton Flavor Physics