## 9th International Conference on High Energy Particle and Nuclear Physics in the LHC Era



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## Connecting Neutrino Mass and Dark Matter via Low-Scale Radiative Seesaw and Phenomenological Implications

Thursday 9 January 2025 14:50 (20 minutes)

I will discuss a TeV-scale extension of the Standard Model in which a dark sector facilitates neutrino mass generation radiatively within the context of the linear seesaw mechanism. Since the symmetries of the model prevent tree-level contributions, tiny neutrino masses are generated at one loop due to spontaneous lepton number violation by the expectation value of a Higgs triplet. I will discuss the implications for charged lepton flavor violation, dark matter phenomenology and collider searches.

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