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## **[347] Status of FASERnu and development of neutrino energy reconstruction algorithms**

*Thursday 7 September 2023 18:30 (15 minutes)*

FASERnu, in the LHC-FASER experiment at CERN, studies collider neutrinos. It consists of 730 alternating emulsion films and tungsten plates, resulting in a target mass of 1.1 tonnes. Data-taking began in 2022, and will continue until the end of 2025. In 2022, due to the track occupancy in emulsion, three data-taking periods were successfully carried out, each requiring darkroom assembly and development campaigns.

To measure neutrino interaction cross-sections, the energy of incident neutrinos must first be reconstructed. This is investigated using both model-independent variables and Neural Network techniques.

In this talk, I will report on the status of FASERnu and discuss the development of energy reconstruction algorithms.

### **Theoretical Work**

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