## PHYSTAT - Statistics meets ML



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## Identifying Tau Neutrinos in IceCube

Thursday 12 September 2024 11:45 (25 minutes)

Astrophysical tau neutrinos were predicted for a long time, but only recently has IceCube been able to identify those at the 5 sigma significance level. The key to this discovery was using machine learning methods to analyse the data. In this talk, I will first give a brief overview of the analysis and results before we dive deeper into the neural nets. We will try to understand how they work and discuss what surprising things we learned.

## **Primary Field of Research**

Presenter: ELLER, Philipp (Wisconsin)

Session Classification: Talks