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Type: **Talk**

## **NUISANCE <3 HEPData: Automated Neutrino Scattering Comparisons**

*Thursday 16 May 2024 10:00 (20 minutes)*

NUISANCE is a neutrino event generator prediction comparison and tuning framework. It facilitates cross-section predictions for the five main event generators in use by the few-GeV neutrino scattering community, enabling non-expert users to compare predictions to over 350 neutrino cross-section measurements, from the historical to the cutting edge.

We are currently in the process of re-designing NUISANCE to meet the needs of next generation of neutrino experiments. A key goal for this effort is to tightly couple NUISANCE to HepData, which will allow us to offload the responsibility of managing experimental data releases back to the experimental collaborations via a repository expressly built for the job, HepData. A technological requirement for this is the ability to execute analysis code packaged in the HepData releases. This talk will introduce NUISANCE and discuss our approach to solving this problem, which is based on providing a standardised and extensible language-agnostic event-processing framework, with a working implementation in C++, leveraging HEP standard tools: HepMC3 and cling.

### **Requested talk length**

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