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## **Keynote: Physics ex machina - Machine learning for fundamental physics**

*Tuesday 7 November 2023 16:00 (1 hour)*

Modern machine learning is revolutionizing our understanding of big data for fundamental physics, promising to shed light on long-standing questions such as “where is the new physics” and “what is the dark matter”. In this talk I will give an overview of recent, exciting developments in areas such as model-agnostic searches, fast simulation and interpretability. I will also highlight the cross-cutting nature of machine learning, illustrating how methods originally developed for the LHC are being applied in new and interesting ways to astronomy, motivated by fundamental physics.

**Presenter:** SHIH, David

**Session Classification:** Physics ex machina: Machine learning for fundamental physics