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## Keynote Address: Foundation models for high energy physics

*Monday 30 September 2024 14:25 (45 minutes)*

Foundation models are machine learning models designed to handle a wide range of datasets and tasks. After being pre-trained on a specific task on a specific dataset, these models can be fine-tuned for various downstream applications, including different tasks and datasets. Developing such models for physics data could significantly enhance performance in the field and substantially cut down the necessary training time and data requirements. In this talk, I will give an introduction to foundation models, provide an overview of the foundation models that exist for particle physics today, and discuss some challenges and outlooks for the future.

### Contribution length

Long

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