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Tracking with Graph Neural Networks

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Recent work has demonstrated that graph neural networks (GNNs) trained for charged particle tracking can match the performance of traditional algorithms while improving scalability. This project uses a learned clustering strategy: GNNs are trained to embed the hits of the same particle close to each other in a latent space, such that they can easily be collected by a clustering algorithm.
The project is fully open source and available at https://github.com/gnn-tracking/gnn_tracking/. In this talk, we will present the basic ideas while demonstrating the execution of our pipeline with a Jupyter notebook. We will also show how participants can plug in their own model.

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