Contribution ID: **87** Type: **not specified**

FCCAnalyses: a ROOT-based Framework for End-to-End Physics Analysis at the FCC

Monday, 17 November 2025 10:00 (30 minutes)

We present an overview of the FCC analysis framework, designed to streamline user workflows from event processing to final results. Built on top of ROOT's RDataFrame and the EDM4hep data model, FCCAnalyses provides a coherent environment for dataset processing, visualization, plotting, and statistical fitting. We will highlight the full analysis chain from the user perspective, including different execution modes, distributed computing integration (HTCondor, Slurm, Dask Gateway), and technical integrations such as TMVA and machine learning interfaces. The presentation will conclude with a discussion of current challenges and planned improvements.

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Session Classification: Morning Session I