



Contribution ID: 2

Type: **Plenary**

Global least squares alignment with Kalman Filter fitted tracks

Wednesday, April 22, 2020 2:10 PM (25 minutes)

The Kalman Filter approach to fitting charged particle trajectories is widespread in modern complex tracking systems. At the same time, the global fit of the detector geometry using Newton-Raphson fitted tracks remains the baseline method to achieve efficient and reliable track-based alignment which is free from weak-mode biases affecting physics measurements. A brief reminder of the global least squares formalism for track-based alignment and how Kalman Filter fitted tracks can be equivalently used for the global fit as well as potential computational benefits and use of additional constraints will be reviewed.

Consider for young scientist forum (Student or postdoc speaker)

No

Second most appropriate track (if necessary)

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Session Classification: Recording sessions