

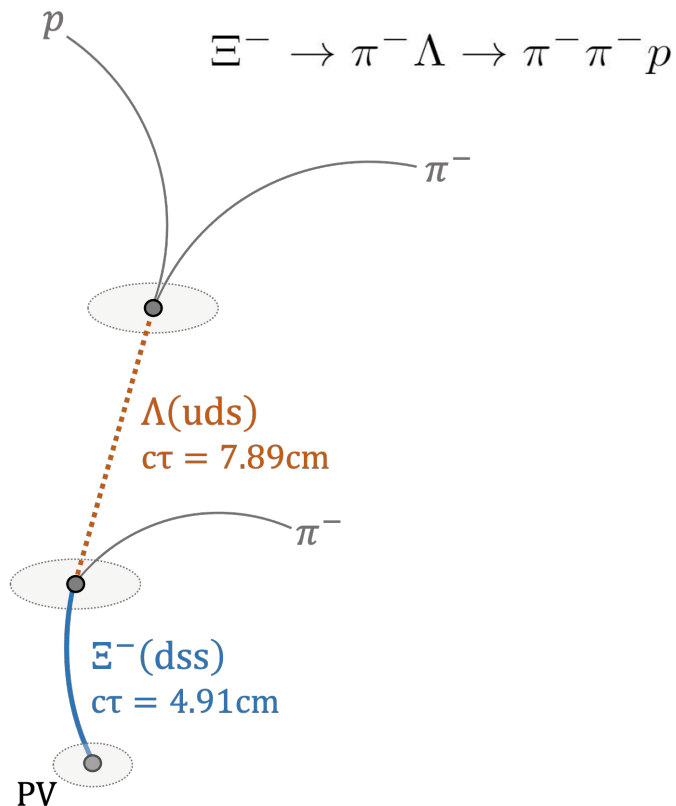
ALICE: Reconstruction of the Xi-baryon in simulated ALICE Run 3 proton-proton data

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2nd meeting of KFParticle developers and
users

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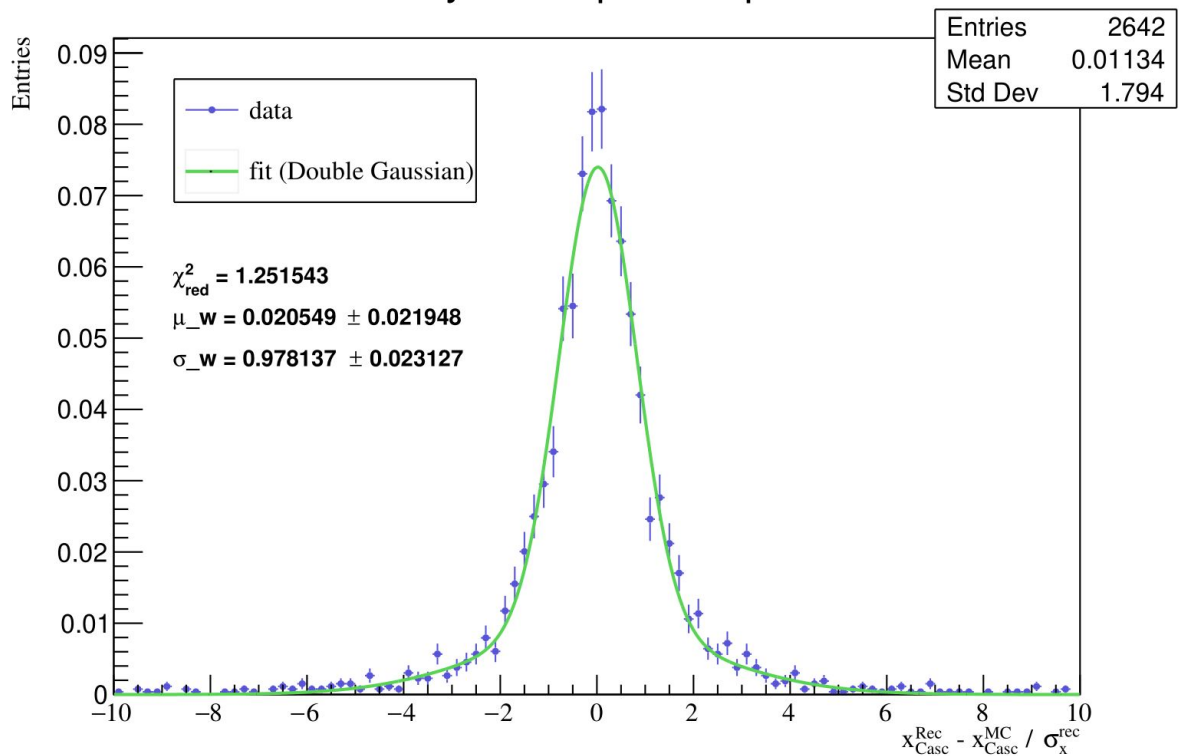
Ξ -baryon reconstruction with KFParticle



- reconstruction of Λ vertex from measured daughter tracks
- subsequent **reconstruction of Ξ vertex from reconstructed Λ and measured pion track**
→ mass constraint applied on Λ
- **performance test of Ξ vertex reconstruction from pseudo-track and measured track**
→ check for correct treatment of covariances
- performance test of mass and topological constraints on Ξ
- **Suggestion to add these checks to the unit test**

Ξ -baryon reconstruction with KFParticle

Xi decay vertex position pull in x



- Ξ decay vertex pulls are investigated
→ double Gaussian distribution with sigma = 1 is observed
→ behaves as expected
- Study of Λ decay vertex is ongoing

Suggestion:
It could be useful to add these cases to the KF unit test