Methods of subtraction of secondary decays

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Ω_c^0 *lifetime measurement meeting*

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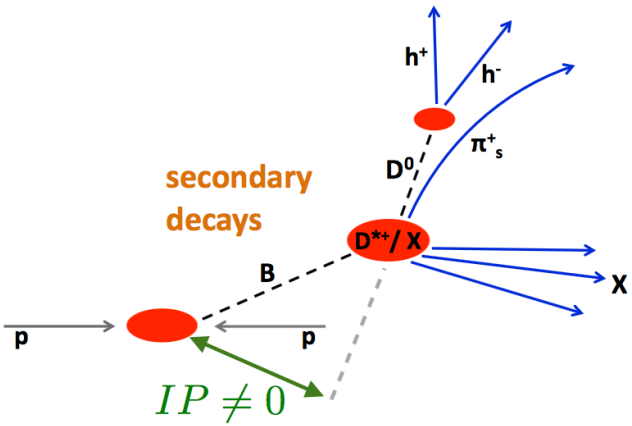
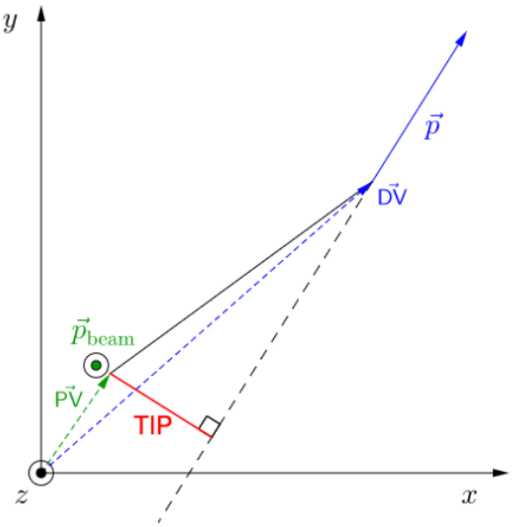
Discriminating variables

- IP: The distance between PV and the track of the candidate
- χ^2_{IP}: The difference between the PV fit χ^2 with or without the track of the candidate
- TIP (Transverse IP)
  - The distance between PV and the track projection on a plane transverse to the beam
  - $TIP = \frac{\hat{z}\times\vec{p}}{|\hat{z}\times\vec{p}|} \cdot (\overrightarrow{DV} - \overrightarrow{PV})$





ln(IP)

- Measurement of $\sigma(pp \to b\bar{b}X)$ at 7 TeV in the forward region
- Two-dimenional fit to the $M(K^-\pi^+)$ and ln(IP)
- Prompt D^0: Bifurcated double-gaussian, free parameter
- From b D^0: Shape from MC

$\log(\chi^2_{IP})$

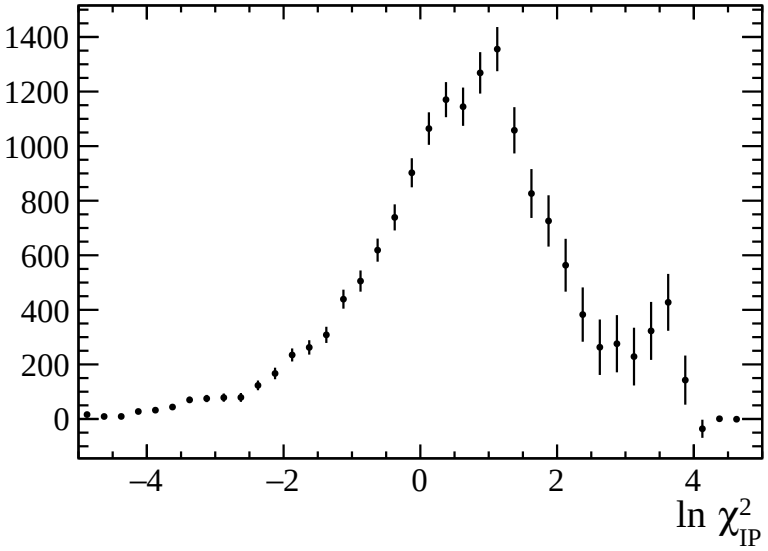
- Study of Cold Nuclear Matter D^0 with prompt D0 meson production in pPb collisions at LHCb
- Constraint fit
- Prompt D^0: Bifurcated double-gaussian, shape from MC
- From b D^0: Gaussian
- Background: Sideband template, number of eventss with Gaussian constraint

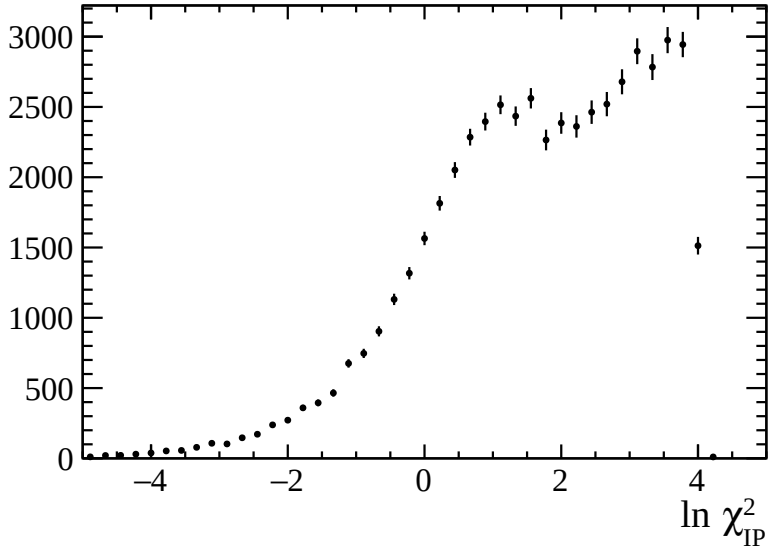
TIP

- A_Γ *measurement*
- Prompt D^0: Gaussian
- From b D^0: Double exponential convolved with exp. resolution
- No background

Distributions of $\ln(\chi^2_{IP})$

- Background subtracted with mass sideband
- Ω_c^0(left) and Ξ_c^0(right)





Distributions of ln(IP)

- Background subtracted with mass sideband
- Ω_c^0(left) and Ξ_c^0(right)