

# Inclusive $D^0$ production

- Information:

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- ▷ Presented for approval: May 4  
<http://indico.cern.ch/conferenceDisplay.py?confId=93495>

- Selection criteria

- ▷ 'good' runs: 132440 - 133038
- ▷ transverse momentum cuts

$$p_{\perp}(K) > 1.25 \text{ GeV}$$

$$p_{\perp}(\pi) > 1.0 \text{ GeV}$$

$$p_{\perp}(D^0) > 3.0 \text{ GeV}$$

- ▷ Vertexing cuts

$$d(K, \pi) < 0.025 \text{ cm}$$

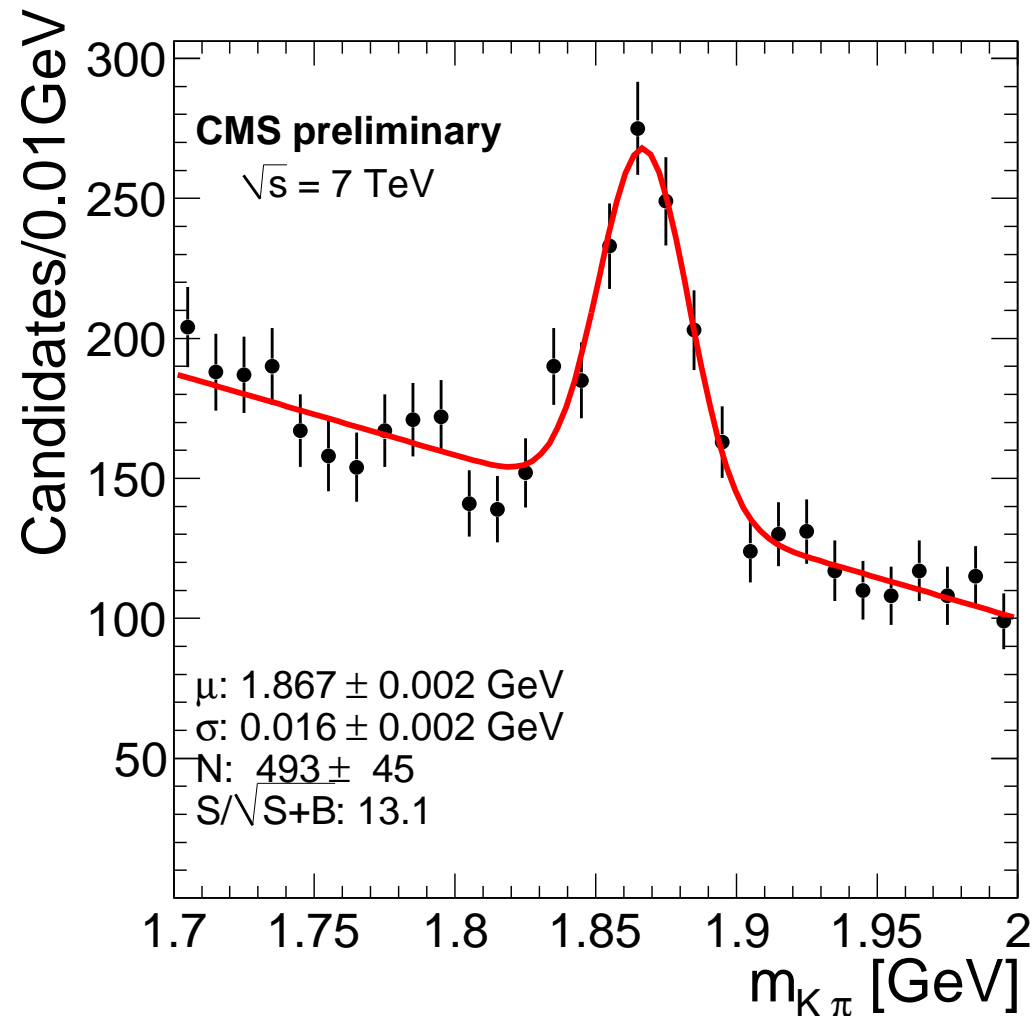
$$\chi^2 < 4.5$$

$$3 < l_{xy}/\sigma(l_{xy}) < 20$$

$$\sigma(l_{xy}) < 0.03 \text{ cm}$$

- ▷  $D^0$  momentum vs. PV-SV direction

$$\angle(\vec{p}_{D^0}, \overline{PV : SV}) < 0.1$$



- MC expectations

- ▷ Peak:  $1.863 \pm 0.002 \text{ GeV}$
- ▷ Width:  $0.014 \pm 0.002 \text{ GeV}$