

**CMS**

Recorded luminosity ( $\text{fb}^{-1}/1.0$ )

- 2023 (13.6 TeV):  $\langle\mu\rangle = 52$
- 2022 (13.6 TeV):  $\langle\mu\rangle = 46$
- 2018 (13 TeV):  $\langle\mu\rangle = 37$
- 2017 (13 TeV):  $\langle\mu\rangle = 38$
- 2016 (13 TeV):  $\langle\mu\rangle = 27$
- 2015 (13 TeV):  $\langle\mu\rangle = 14$
- 2012 (8 TeV):  $\langle\mu\rangle = 21$
- 2011 (7 TeV):  $\langle\mu\rangle = 10$

$\sigma_{\text{in}}^{\text{pp}}(13.6 \text{ TeV}) = 80.0 \text{ mb}$   
 $\sigma_{\text{in}}^{\text{pp}}(13 \text{ TeV}) = 80.0 \text{ mb}$   
 $\sigma_{\text{in}}^{\text{pp}}(8 \text{ TeV}) = 73.0 \text{ mb}$   
 $\sigma_{\text{in}}^{\text{pp}}(7 \text{ TeV}) = 71.5 \text{ mb}$

Mean number of interactions per crossing

