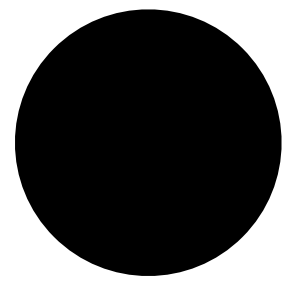


Discussion session: photoproduction, PC/UPC,...

HF2022: heavy flavours from small to large systems
3 – 21 October, 2022
Institut Pascal, Orsay

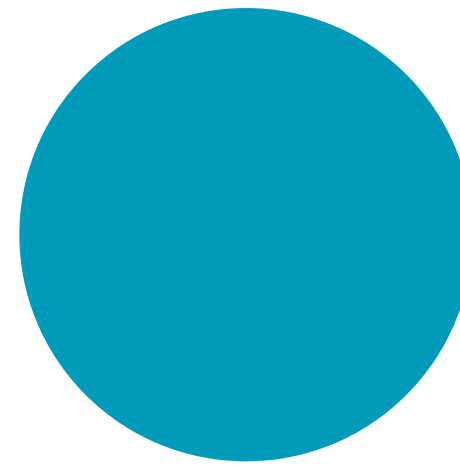
Nuclear GPDs

nucleon



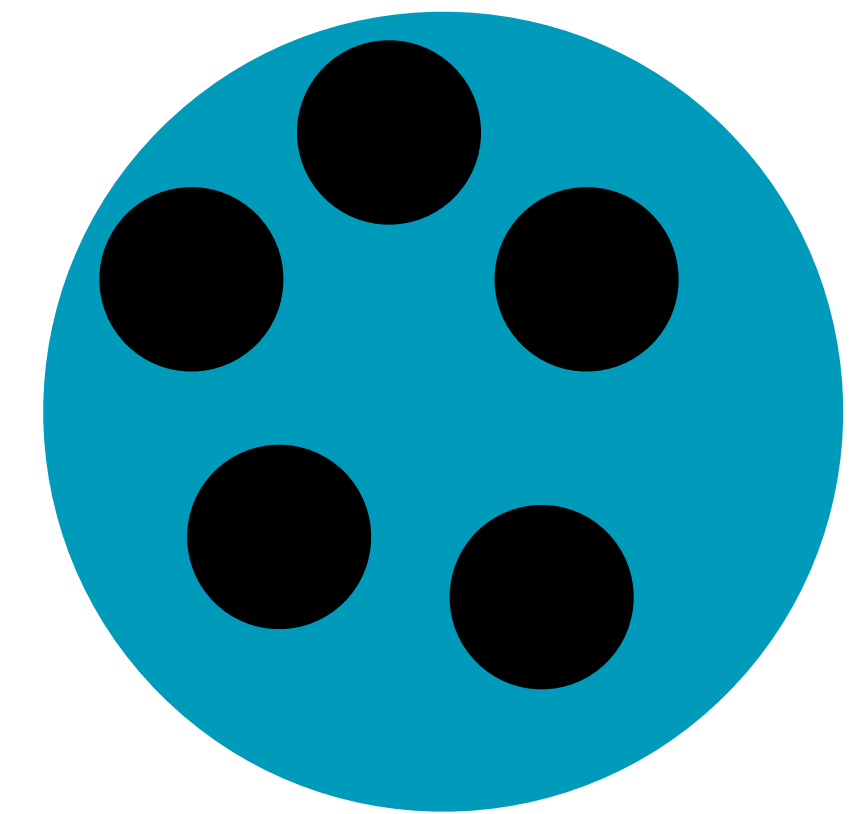
nucleon GPD:
4 helicity-conserving + 4 helicity flip GPDs

light nucleus



nuclear GPD=GPD for object with specific spin.
Example for deuteron:
9 helicity-conserving + 9 helicity flip GPDs

heavy nucleus



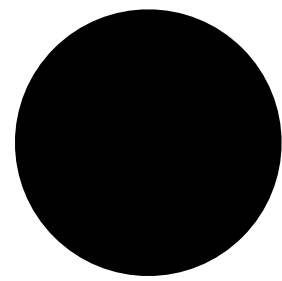
nuclear GPDs=
nucleon GPDs in nuclear environment

Factorisation?

$$Q^2 \gg M_h^2$$

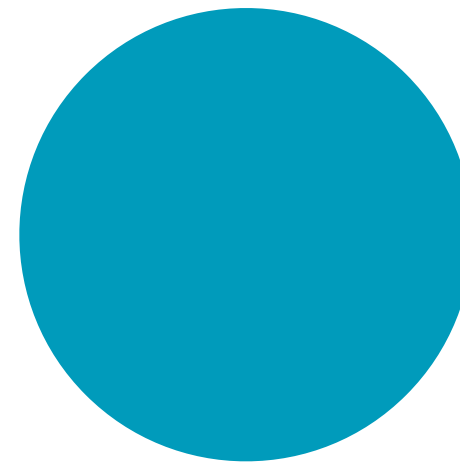
Nuclear GPDs

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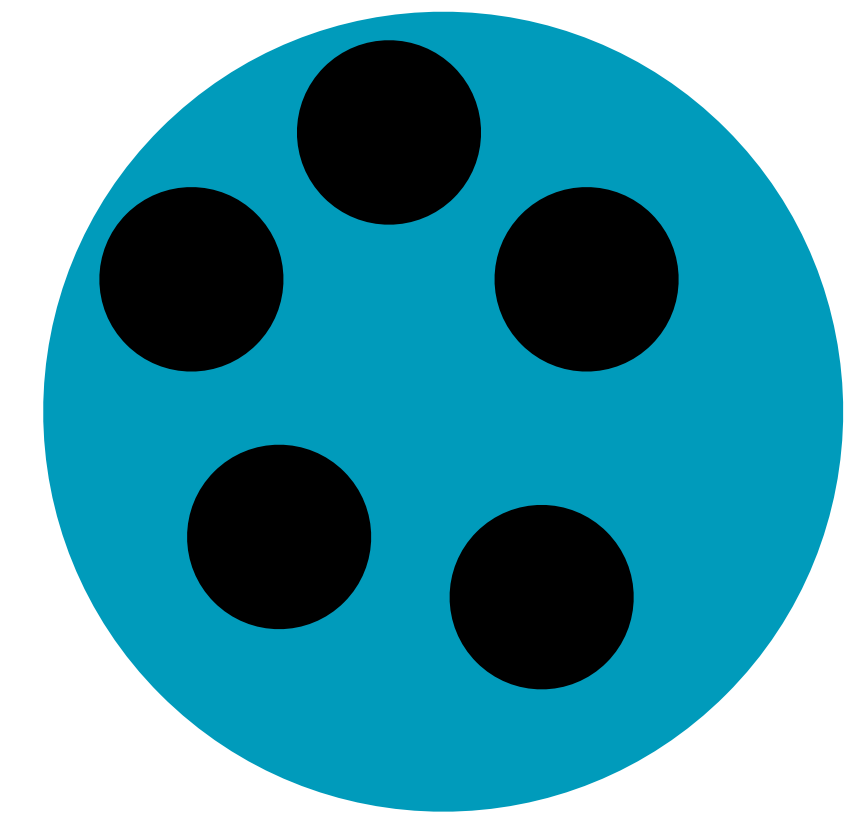
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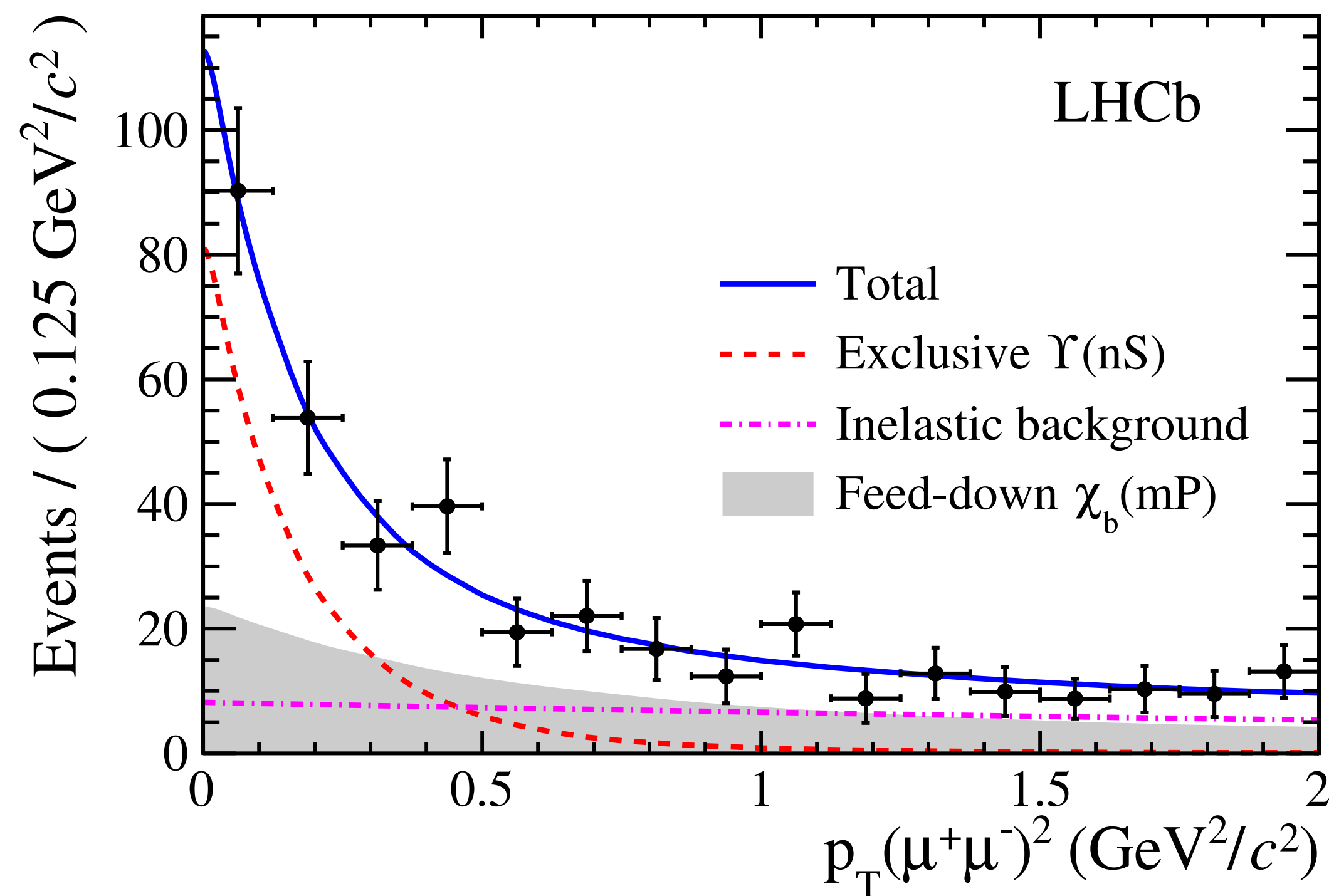
• Hotspots: singlet GPD

Precision of determination of PDFs

- Description of quarkonium: which elements constitute the uncertainty+how large are they?
- Scale fixing

Dissociative background

- How exclusive is exclusive?
- Estimate of dissociative background: functional form of p_T .



Dissociative background:
often determined via fit of p_T distributions

Exclusive and inclusive photoproduction measurements at LHC

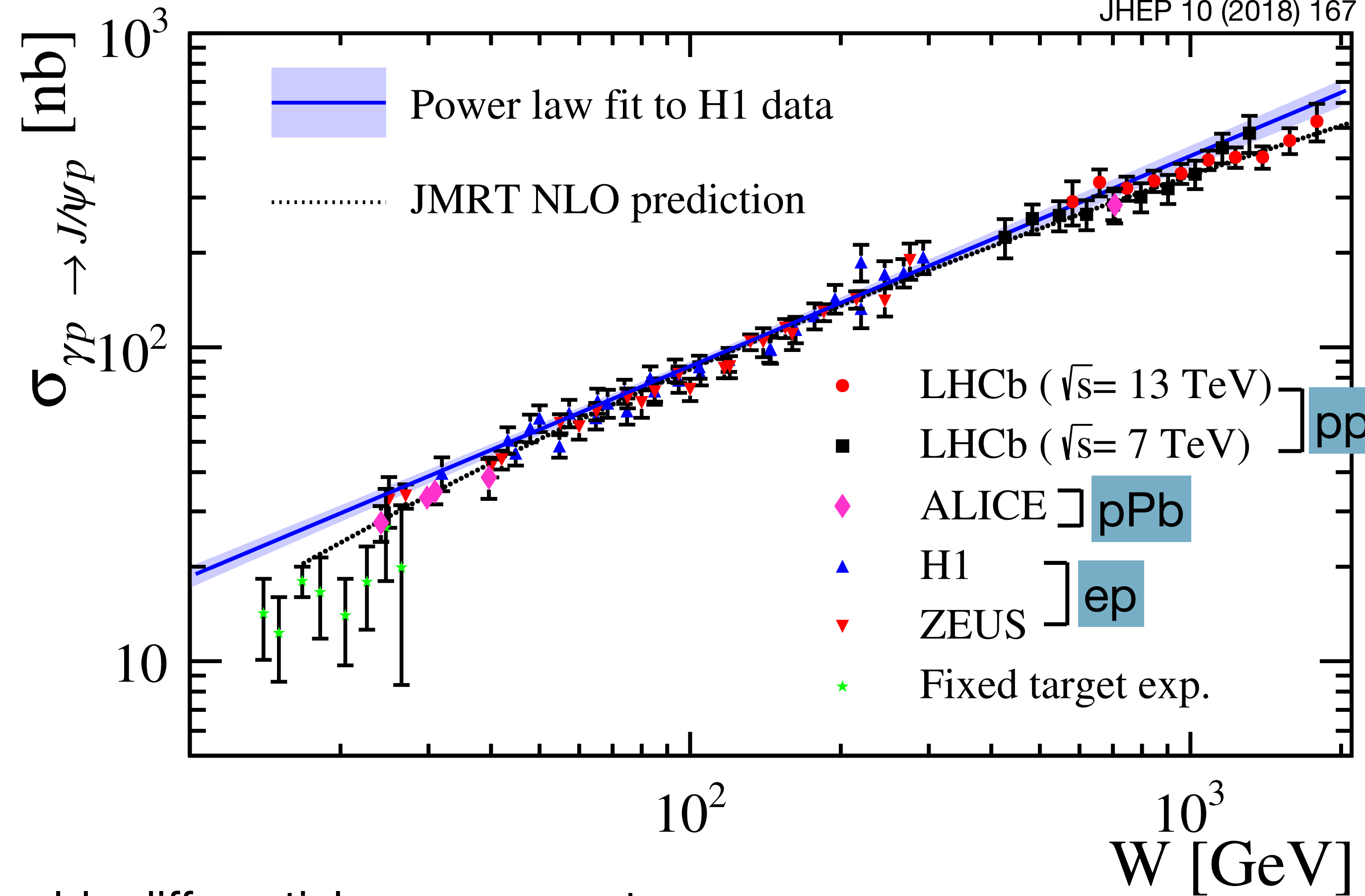
- ZDCs
- Roman pots: high t , special β^* runs

Global GPD fits

J. Phys. G: Nucl. Part. Phys. 41 (2014) 055002

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- What is missing?
 - Survival gap factor



- Convince LHC experimentalists need double differential measurements