

# PDF uncertainties in the presence of inconsistent training data

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**POSTER: #100**



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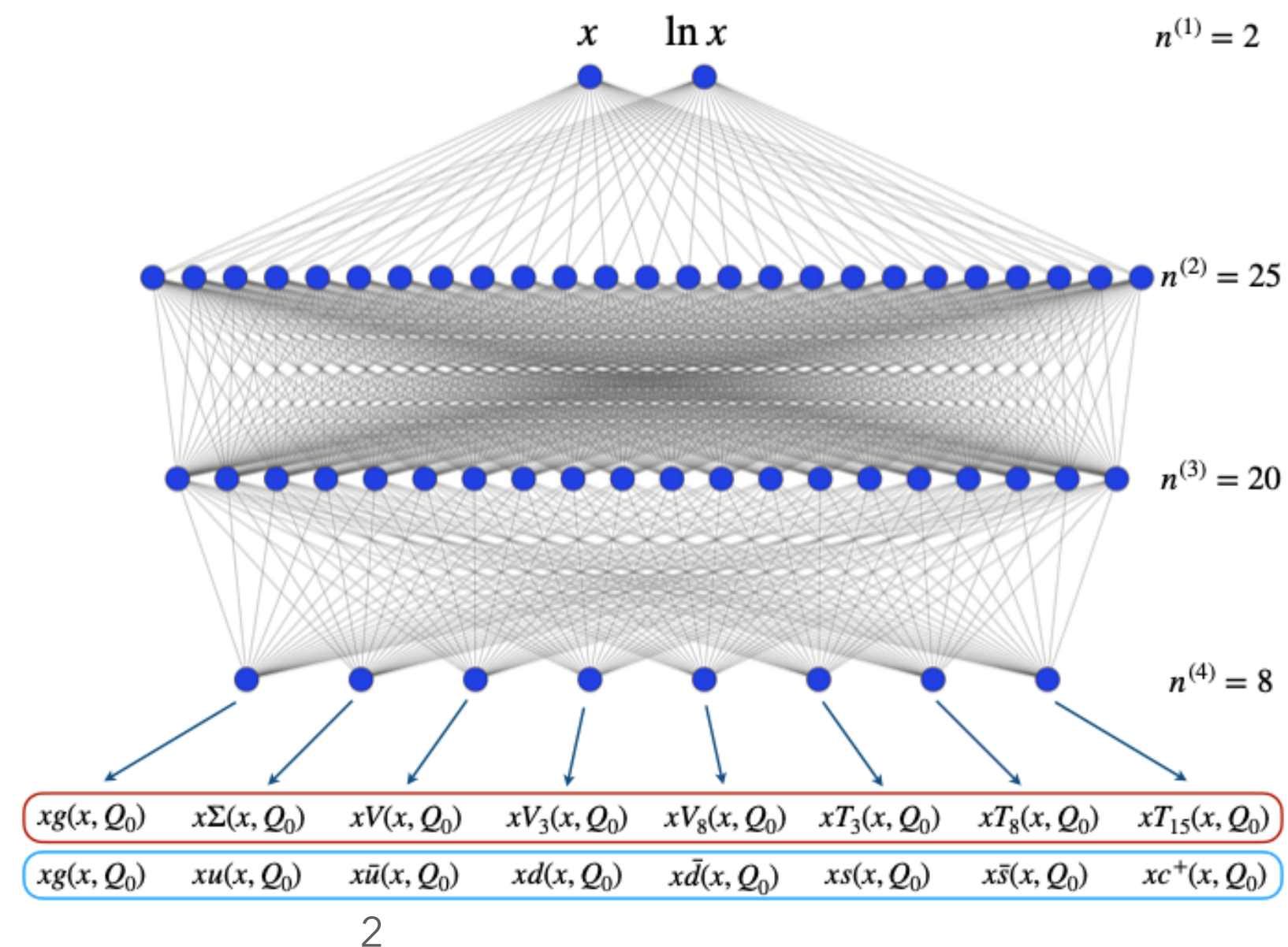
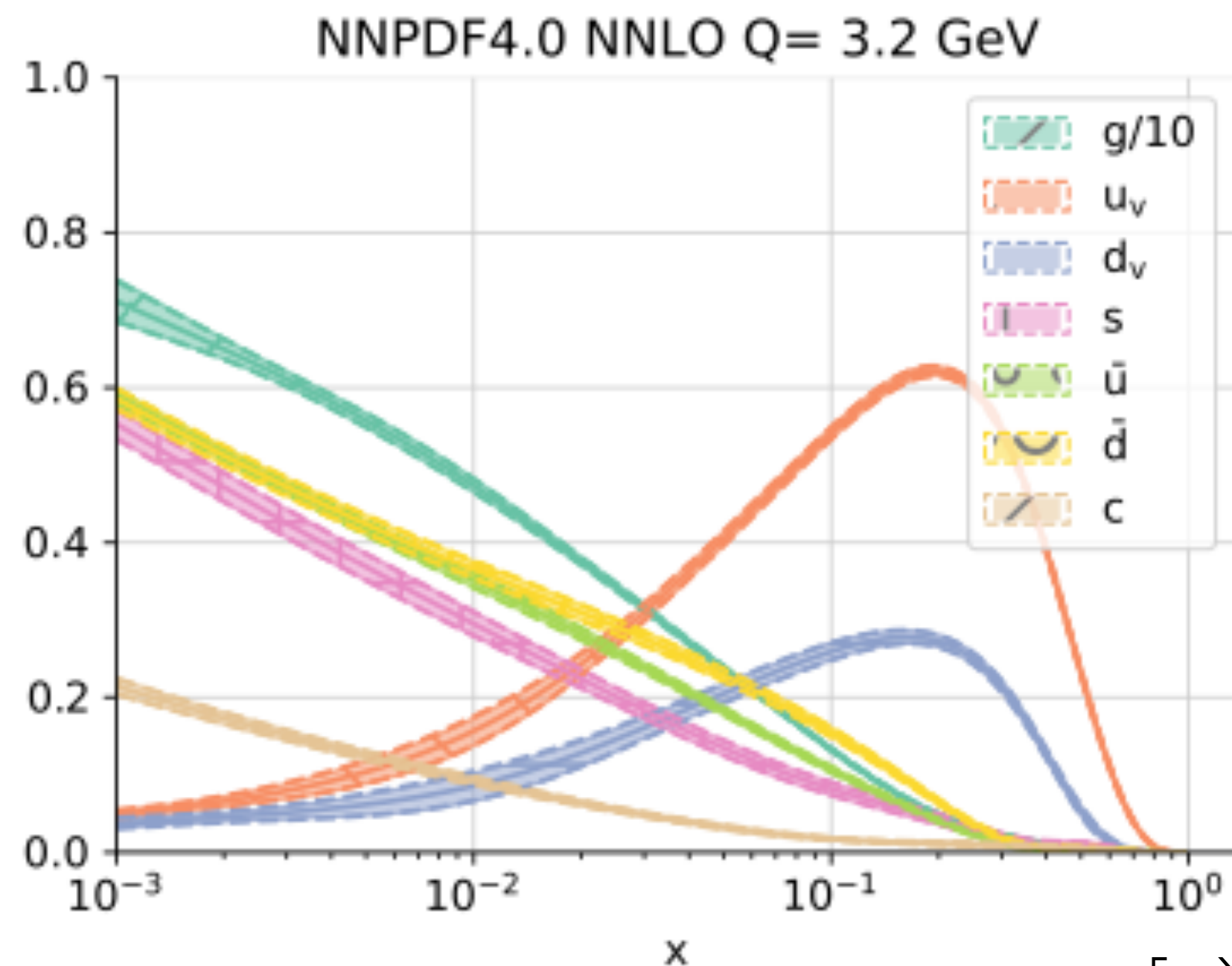
**European Research Council**  
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**NNPDF**

**PBSP** 

# Parton Distribution Functions and their uncertainties

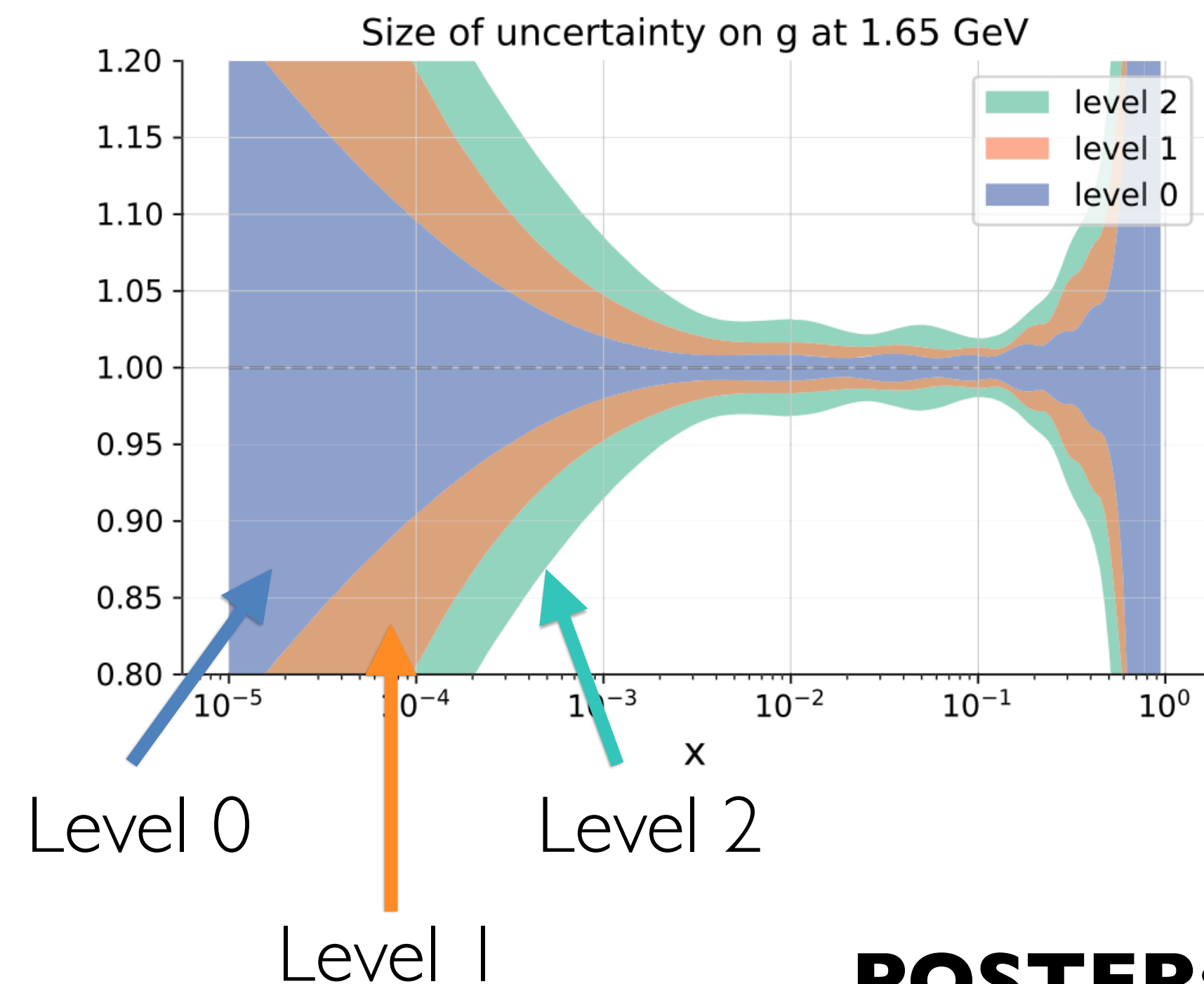
- PDFs parameterise the structure of the proton in terms of its subnuclear constituents
- NNPDF: PDF model is parameterised by a dense Neural Network and uncertainties are estimated through the Monte Carlo replica method [arXiv: 2404.10056]
- Fitted from data from several experimental sources → several sources of inconsistencies can affect fit



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# Inconsistent training data

- Inconsistency is defined as a missing or underestimated experimental uncertainty
- Closure test: powerful framework to test fitting methodology [arXiv: 2111.05787]



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