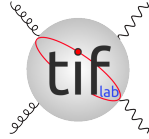


NNPDF



NNPDF
Machine Learning • PDFs • QCD

LE GRAND MONDE

STEFANO FORTE
UNIVERSITÀ DI MILANO & INFN



UNIVERSITÀ DEGLI STUDI DI MILANO
DIPARTIMENTO DI FISICA



NNPDF MEETING

GARGNANO, SEPTEMBER 25, 2023

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 740006

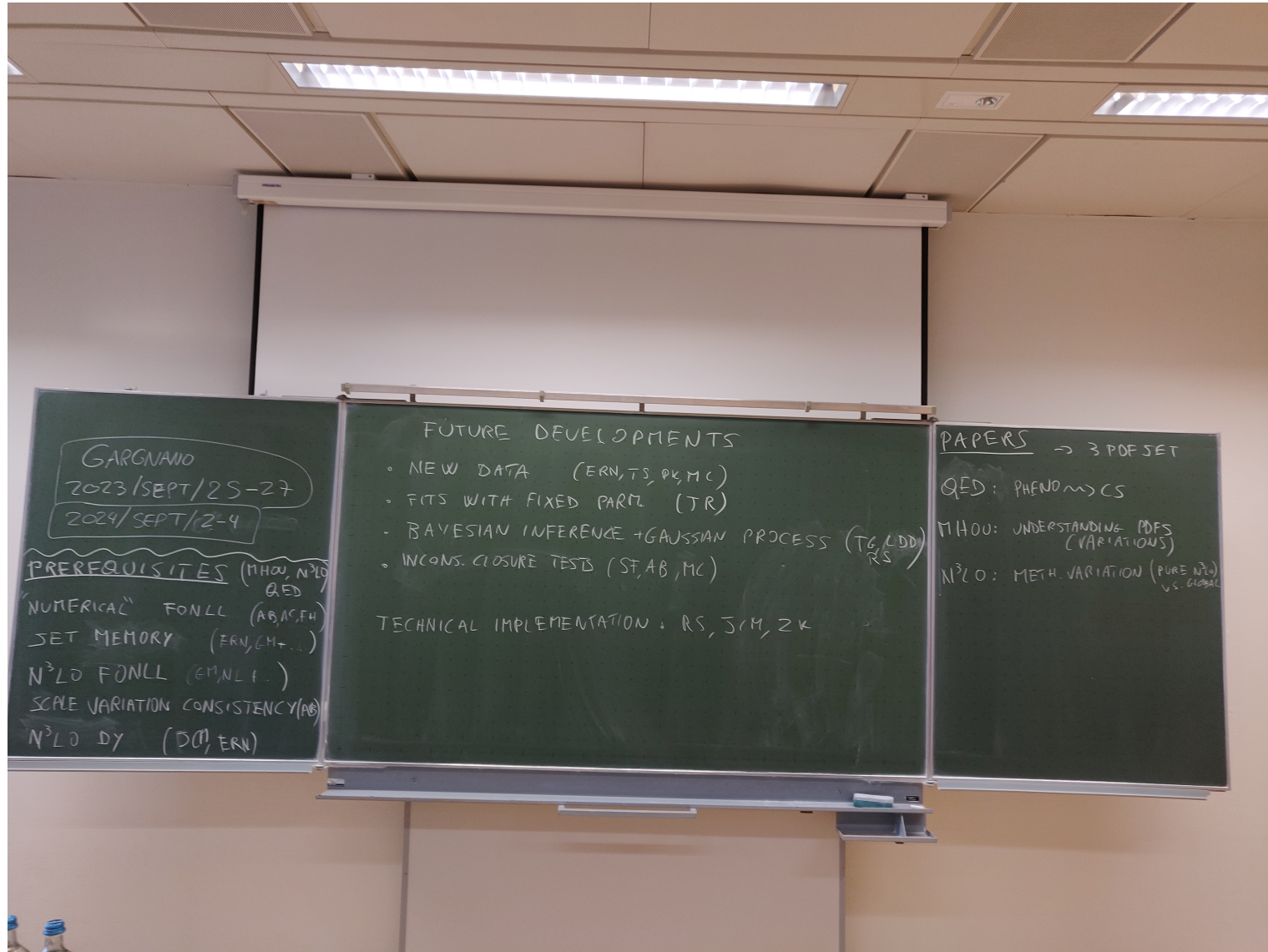
WHERE DO WE COME FROM?

GARGNANO 2023: WISHLIST

<p>A) Computing</p> <p> ** 4.0 + TH1A3 TH ** 4.0 GED NL AC ** 4.0 N3(DGM) SM </p>	<p>(R) Statistics</p> <p> ** 4.0 Hopsotch RS SM ** 4.0 Inference (Luigi) TG LDD </p>	<p>(C) Towards 4.1</p> <p> ** 4.0 No @ CD NNLO ** 4.1 k-factors CS ** 4.0 New data, ddpoc ** New processes } ERN TG LDD 4.1 Electroweak CS M2 </p>
<p> *** → 2 months ** → ASAP (Almost meeting) * → 2023 (summer) 4.1 → NNPDF4.1 (2023?) </p>		

<p>(D) Methodology</p> <p> 4.1 Feature scaling ** 4.1 Next hyper-pt + overlump } SM TRS ** 4.0 killing NN TG AC </p>	<p>(E) Beyond proton PDFs (M)</p> <p> 4.1 Integrated nuclear TR 4.1 " fragm. + pol ERN 4.1 EFT + neutrino MU, JR </p>
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AMSTERDAM 2023: ROADMAP

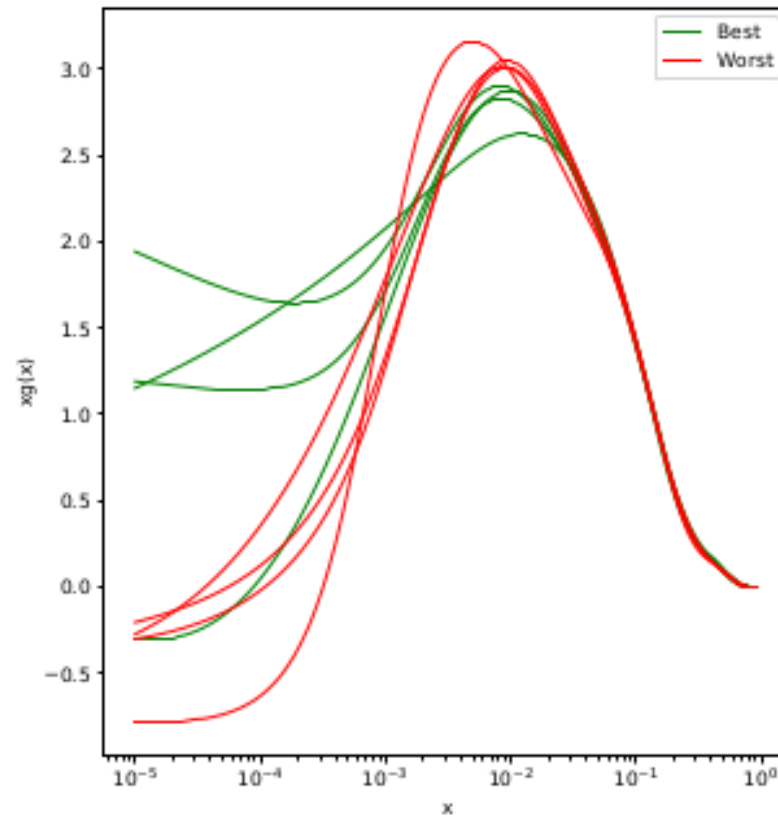
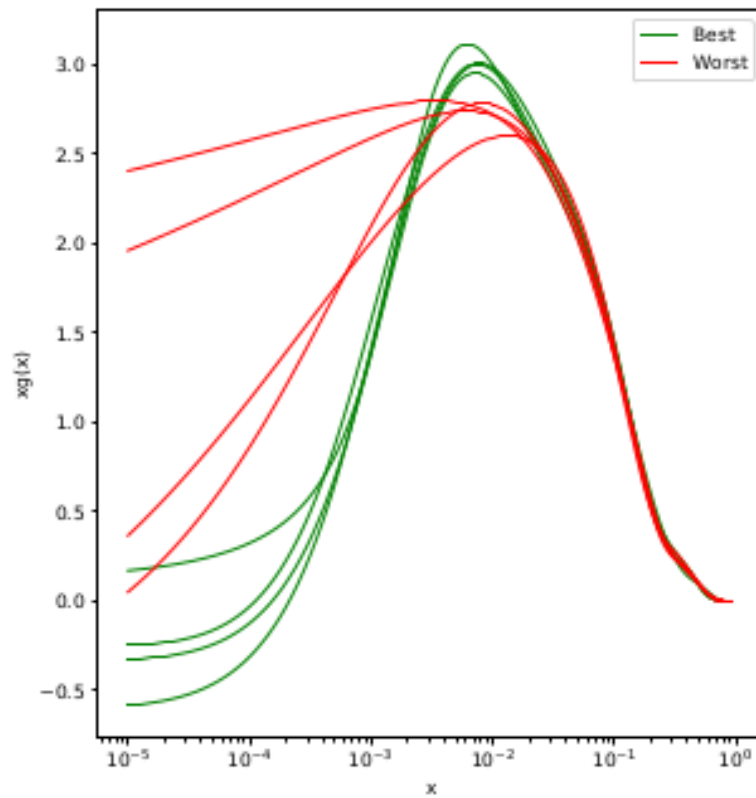


AMSTERDAM 2023

DO WE UNDERSTAND OVERLEARNING?

BEST VS WORST REPLICAS

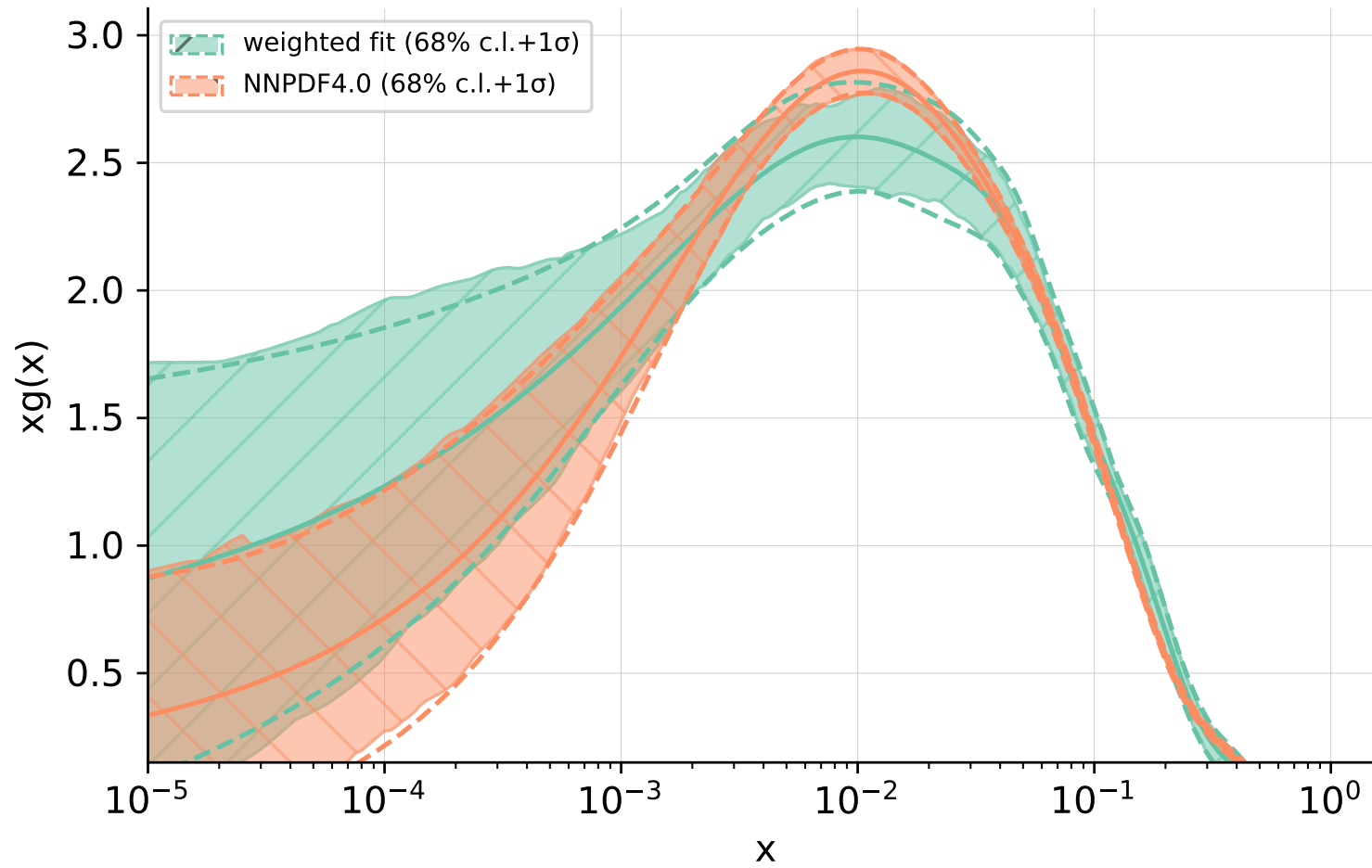
FIT VS GENERALIZATION



AMSTERDAM 2023

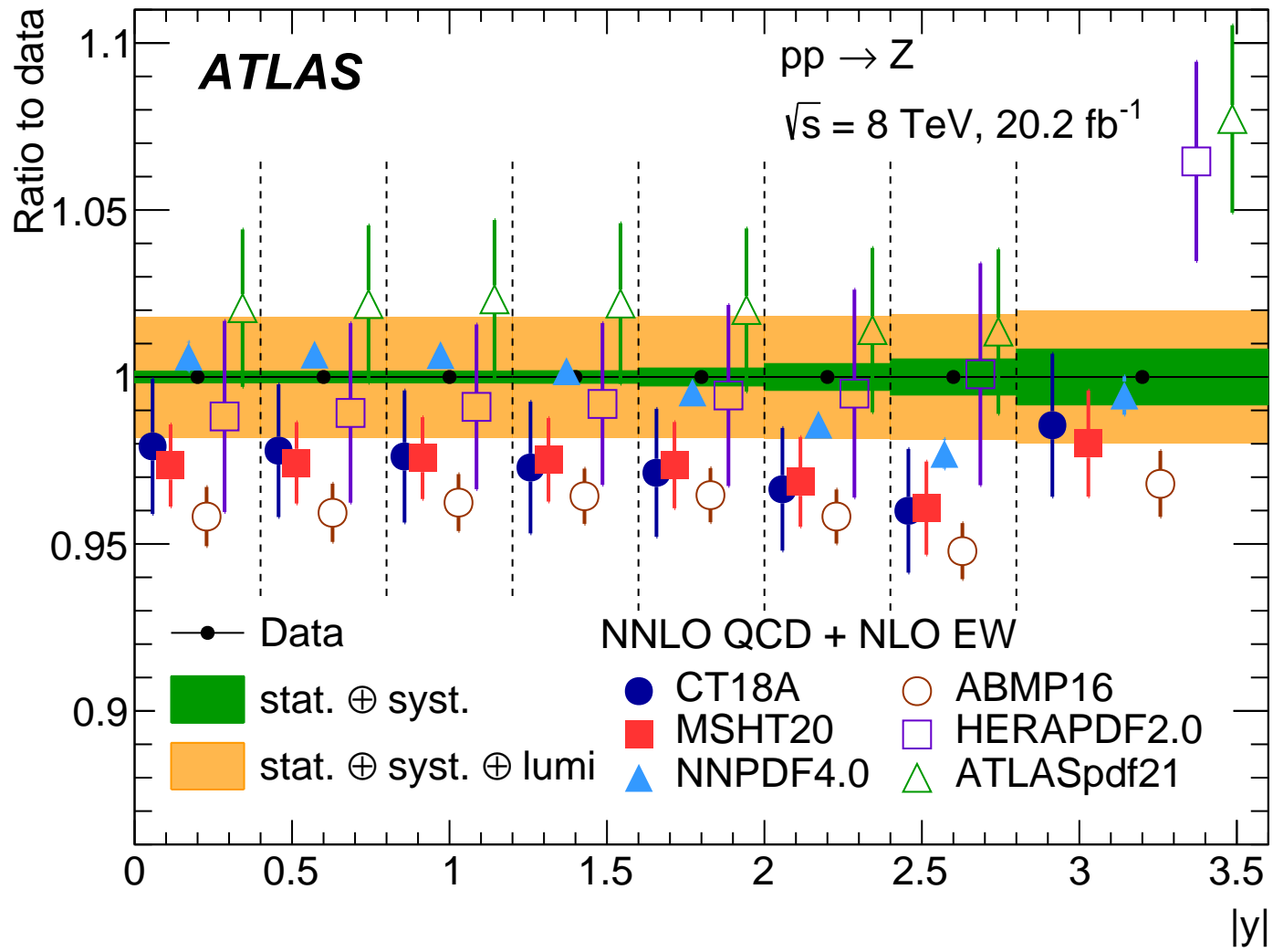
DO WE UNDERSTAND DATA INCONSISTENCIES?

g at 1.651 GeV



WHERE ARE WE GOING?

DO WE UNDERSTAND DATA?



DO WE UNDERSTAND MODELS?

