QNP2024 - The 10th International Conference on Quarks and Nuclear Physics



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## Parametrization sampling and the pion PDF in a phenomenological analysis

Tuesday, 9 July 2024 15:00 (20 minutes)

We present recent efforts in the determination of the distribution of partons in the pion, with an emphasis on uncertainty quantification. The Fantômas project aims to explore the role of trial shapes for the distribution of quarks and gluons in the final uncertainty that results from global analyses. The first results within the Fantômas framework show that impact for PDFs of the pion, which is now the only PDF set that contains an explicit sampling over parametrization space. We'll comment on future avenues for uncertainty quantification in global analyses of PDFs.

## session

C. Hadron Structure

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