

Summary Plots for the FIPs 2022 Workshop Report

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FIPs 2022 Proceedings: Table of Contents

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In the three Conclusions sessions we will fit the summary plots and relative discussion:

- similar to what you have seen in the document that we have circulated.

These plots will become the official reference for all of us until the next plot release :

- likely by the next FIPs workshop scheduled in 2024

The « rules of the game » for the plots:

1. Use the standard 11 PBC benchmarks for having a common framework where to compare results.
2. Use only results/projections from experimental collaborations or officially accepted by experimental collaborations (to avoid confusion).
3. Use only results/projections that are discussed in public documents (articles, proceedings, etc) that can be cited in the documentation:
 - the bibliography must represent a solid base where to check results
4. Use a different graphical font depending on the maturity of the results:
 - filled areas: current bounds
 - dotted lines: projections obtained with toy monte carlo
 - dashed lines: projections obtained with full monte carlo (including backgrounds)
 - solid lines: projections obtained from existing datasets.

CAVEAT: there are existing bounds that are simply recast of very old data.

We will differentiate them in the next release from solid bounds established by experimental collaborations.

THE PROCESS:

- ✓ We circulated the document on Friday asking the collaborations to control their own sets of curves.
- ✓ Very positive feedback already in a few days. In chronological order:
 - F. Kling (FASER and FPF)
 - T. Ferber (Belle II)
 - A. Boyarsky (SHiP)
 - S. Soldner-Rembold (microBooNE)
 - W. Krasny (Gamma Factory)
 - M. Drewes (ATLAS/CMS rHNL-related plots)
 - P. Crivelli (NA64)
 - M. Battaglieri (Experiments at JLAB).
 - P. Coloma (Argo-Neut)
 - O. Lantwin (SND and Advanced SND)
 - C. Hearty (Belle II)
 - E. Goudzovski (NA62/HIKE)
 - J. L. Tastet (general comments on the document)
 - C. Vallee (general comments on the plots)
 - A. De Roeck (DUNE)

Only the first three sets of comments have been included today in the plots (just for lack of time),
→ We will include the remaining ones in the coming days.

THE PROCESS: Next Steps

- ✓ **Today:** discussion all together and collection of another bunch of comments.
- ✓ **March 1st:** deadline for sending remaining comments/corrections:
→ **DEADLINE FOR COMMENTS: Wednesday March 1st, at 3 pm (CET).**
- ✓ **March 15th (or so):**
Proceedings with the final set of contributions and plots circulated to you
(you will have a few days for re-checking everything).
- ✓ **End of March:** submission of the Proceedings to arXiv and to EPJC.

Summary Tables & Plots

