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A φ(1020) comparative study between MC and experimental data for the BM@N experiment

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The aim of this work is a comparative study of φ(1020) for the BM@N experiment. Both Monte-Carlo and experimental data were analyzed. Several distributions were considered during this process: residuals of the ToF400 and GEM detectors, number of tracks in the primary vertex and the number of hits per track for the two products of decay of φ(1020). Afterwards, necessary corrections were applied to MC data to minimize its deviation from the experimental one. Finally, invariant mass distributions were derived for both types of data.

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