

Visualization aided physics analysis in BESIII experiment

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In high energy physics experiments, visualization not only plays important roles in detector design, data quality monitoring, simulation and reconstruction, but also aids physics analysis to improve the performance. Besides the traditional physics data analysis based on statistical methods, the visualization method is intuitive and can provide unique advantages, especially in searching for rare signal events and new physics beyond the standards model.

By applying the event display tool to several physics analyses in the BESIII experiment, we demonstrate that visualization can benefit the potential physics discovery and improve the signal significance.

With the development of modern visualization techniques, it is expected to play a more important role in future data processing and physics analysis of particle physics experiments.

Alternate track

I read the instructions above

Yes

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