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How to improve reaction plane measurement via the combination of multiple detectors? XIAOYANG GONG — Determining reaction plane plays a central role in various heavy ion analyses as it directly characterizes the non-trivial initial geometry for a collision. Multiple reaction plane detectors, the performances of which are estimated by reaction plane correction factors (resolution factors), are installed at most of current RHIC experiments. They are situated at different rapidity ranges and are mainly used for systematical cross-checks of elliptic flow measurement. In this talk, we aim to improve the RP resolution factor by combining information provided by two or more reaction plane detectors. The mathematic framework is formulated; AMPT simulation is used to demonstrate the robustness of the method.

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