Energy dependence of forward-backward transverse momentum

correlation from STAR

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Transverse momentum correlations could serve as a powerful probe of the early dynamics of hadronic interactions in heavy-ion collisions. The correlation coefficient is constructed from event-by-event average $\langle p_T \rangle$ in two separated pseudorapidity regions. We present measurements of the average transverse momentum correlation coefficient in Au+Au collisions from 27 to 200 GeV at STAR BES energies. Forward-backward $\langle p_T \rangle$ correlations are studied by varying pseudorapidity window and separation between adjacent pseudorapidity regions. The centrality dependence of forward-backward transverse momentum correlation is also discussed.

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