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Studies of Underlying-Event Activity in Proton+Proton Collisions by STAR LI YI, Yale University, STAR COLLABORATION — Underlyingevent activity originates from the soft particle production in proton+proton collisions which is not directly related to the final fragmentation of hard-scattered partons. Underlying-event measurements therefore provide a tool to study nonfactorizable and non-perturbative phenomena. Systematic measurements of the relationship between the underlying event and jet processes are therefore essential to disentangle initial state nuclear effects from cold nuclear matter effects and jet quenching. Moreover, the underlying event results in a background contribution that needs to be carefully analyzed when interpreting the measurements of inclusive jet cross sections and longitudinal asymmetries. In this talk, we will discuss the progress of underlying-event measurements in proton+proton collisions by STAR.

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