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**Transverse Single-Spin Asymmetry for Electromagnetic Jets at Forward Rapidities at STAR in $p^{\uparrow}$ + p Collisions at $\sqrt{s}$ = 200 GeV** LATIFUL KABIR, University of California, Riverside, STAR COLLABORATION — There have been various attempts, both experimentally and theoretically, to understand the origin of the unexpectedly large transverse single-spin asymmetries ($A_N$) for inclusive hadron production at forward rapidity in $p^{\uparrow}$ + p collisions that persist at high center-of-mass energies. Two proposed potential sources are the twist-3 contributions in the collinear factorization and the transverse-momentum-dependent contributions from either the initial-state quark and gluon Sivers functions or the final-state Collins fragmentation function. In 2015 and 2017, RHIC collected data from transversely polarized pp collisions, which are ideal to further characterize $A_N$ and explore its potential sources. The STAR Forward Meson Spectrometer (FMS) and Endcap Electromagnetic Calorimeter (EEMC), having pseudo-rapidity ($\eta$) coverages of 2.6 - 4.2 and 1.1 - 2.0 respectively, can be used to detect photons, neutral pions, and eta mesons. We present an analysis update for $A_N$ of electromagnetic jets in FMS and EEMC using $p^{\uparrow}$ + p collisions at $\sqrt{s}$ = 200 GeV. In this analysis, we explore the dependences of $A_N$ on photon multiplicity inside the jet, jet transverse momentum, and jet energy.

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