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Coulomb anomaly in the tunneling between compressible quantum Hall bilayers: the role of partial spin polarization PATRICK LEE, DEBANJAN CHOWDHURY, BRIAN SKINNER, MIT — Tunneling of electrons into a two-dimensional electron system is known to exhibit a "Coulomb anomaly", in which the tunneling conductance vanishes at low energy due to a many-body interaction effect. In this way, measurement of the Coulomb anomaly can be used as a probe of many-body correlations. Here we discuss the tunneling conductance between two identical copies of the half-filled Landau level, for which the Coulomb anomaly arises from many-body correlations between composite Fermions. We focus in particular on the dependence of the conductance on the spin polarization in the electron system and on the layer separation, and we compare with recent experiments [1]. [1] J. Eisenstein et al., PRB 94, 125409 (2016).

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