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**Anisotropic Composite Fermions and Fractional Quantum Hall Effect** M A MUEED, DOBROMIR KAMBUROV, SUKRET HASDEMIR, MANSOUR SHAYEGAN, LOREN PFEIFFER, KEN WEST, KIRK BALDWIN, Princeton University — We study the role of Fermi sea anisotropy on the transport properties of composite Fermions near Landau level filling factor  $\nu = 1/2$  in two-dimensional hole systems confined to GaAs quantum wells. By applying a parallel magnetic field, we tune the Fermi sea anisotropy and monitor the relative change of the transport scattering time along its principal directions. Interpreted in a simple Drude model, our results suggest that the scattering time is longer along the longitudinal direction of the Fermi sea. Furthermore, we find that the measured energy gap for the fractional quantum Hall state at  $\nu = 2/3$  decreases when anisotropy becomes significant.

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