

Abstract Submitted
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Anisotropic Fermi Contour of Composite Fermions in Tilted Magnetic Fields¹ MANSOUR SHAYEGAN, DOBROMIR KAMBUROV, YANG LIU, M.A. MUEED, SUKRET HASDEMIR, LOREN PFEIFFER, KENNETH WEST, KIRK BALDWIN, Princeton University — We employ surface-strain-induced commensurability oscillations of hole-flux composite fermions to study the effect of parallel magnetic field on their Fermi contours in high-quality C-doped (001) GaAs hole quantum wells. Our measurements reveal that the composite fermion Fermi contours are significantly distorted in the presence of parallel field. Along the direction of the parallel field, the Fermi wave vectors shrink while in the perpendicular direction they grow, and at 25 T parallel field, the relative distortion reaches 50%.

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