

Abstract Submitted  
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**Quasiparticle tunneling at an odd-denominator fractional quantum Hall state**<sup>1</sup> HAILONG FU, PUJIA SHAN, PENGJIE WANG, Peking Univ, LOREN PFEIFFER, KEN WEST, Princeton Univ, XI LIN, Peking Univ — In the fractional quantum Hall (FQH) state, the effective charge and interaction parameter of quasiparticles can be extracted through weak tunneling theory [1]. Weak tunneling theory has been applied in the even-denominator  $5/2$  FQH state's edge-current-tunneling to search for the non-Abelian statistics [2,3,4,5], but weak tunneling theory has not been quantitatively verified in the simpler odd-denominator Laughlin FQH state with similar configurations. We measured edge-current-tunneling within a quantum point contact at the  $5/3$  FQH state, and the interaction parameter is close to the theoretical prediction  $1/3$ . [1] Phys. Rev. B **44**, 5708 (1991). [2] Science **320**, 899 (2008). [3] Phys. Rev. B **85**, 165321 (2012). [4] Phys. Rev. B **90**, 075403 (2014). [5] PNAS **113**, 12386 (2016).

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