http://www.phy.pku.edu.cn/~icmp/forum/njt.xml

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Measurements of Quasi-Particle Tunneling in the υ = 5/2 Fractional Quantum Hall Regime

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supersolid FQHE

Some models of the 5/2 fractional quantum Hall state predict that the quasiparticles, which carry the charge, have non-change of phase factor. Such non-Abelian statistics would the system less sensitive to decoherence, making it a can for implementation of topological quantum computatio measure quasiparticle tunneling as a function of tempe and dc bias between counterpropagating edge states. theory give e*, the quasiparticle effective charge, close expected value of e/4 and g, the strength of the inter between quasiparticles, close to 3/8. Fits corresponding various proposed wave functions, along with qualitative fe of the data, strongly favor the Abelian 331 s

Photograph by Xiaodong Hu