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Nature of excitations of the 5/2 fractional quantum Hall effect NICOLAS REGNAULT, Laboratoire Pierre Aigrain, Departement de Physique ENS, 24 rue Lhomond, 75005 Paris, France, CSABA TOKE, JAINENDRA JAIN, Department of Physics, 104 Davey Laboratory, The Pennsylvania State University, Pennsylvania, 16802 — We show, with the help of exact diagonalization studies on systems with up to sixteen electrons in the presence of up to two delta function impurities, that the Pfaffian model is not accurate for the actual quasiholes and quasiparticles of the 5/2 fractional quantum Hall effect. We discuss implications for non-Abelian statistics.

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