

Abstract Submitted
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Fractionalization in spontaneous integer quantum Hall systems¹ ARMIN RAHMANI, RODRIGO MUNIZ, IVAR MARTIN, Los Alamos National Laboratory — We show that electron fractionalization can occur in quantum Hall liquids even in the absence of strong correlations. Focusing on a Kondo lattice model that exhibits spontaneous integer Hall effect due to non-coplanar magnetic ordering, we find that Z_2 vortices in the magnetic order parameter can bind fractional quantum numbers. The vortices have anyonic exchange statistics.

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