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Quantum Hall States at filling $\nu = \frac{2}{k+2}$ WAHEB BISHARA, GREGORY FIETE, California Institute of Technology, CHETAN NAYAK, UCSB, Microsoft Research Station Q — We study the $\nu = \frac{2}{k+2}$ quantum Hall states which are particle-hole conjugates of the $\nu = \frac{k}{k+2}$ Read-Rezayi states. We find that equilibration between the different modes at the edge of such a state leads to an emergent $SU(2)_k$ algebra in the counter-propagating neutral sector. Heat flow along the edges of these states will be in the opposite direction of charge flow. In the $k = 3$ case, which may be relevant to $\nu = 2 + \frac{2}{5}$, the thermal Hall conductance and the exponents associated with quasiparticle and electron tunneling distinguish this state from competing states such as the hierarchy/Jain state.

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