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Transport in line junctions of $\nu = 5/2$ quantum Hall liquids[1]
CHENJIE WANG, DIMA FELDMAN, Physics Department, Brown University —
We calculate the tunneling current through long line junctions of a $\nu = 5/2$ quantum Hall liquid and i) another $\nu = 5/2$ liquid, ii) an integer quantum Hall liquid and iii) a quantum wire. Momentum resolved tunneling provides information about the number, propagation directions and other features of the edge modes and thus helps distinguish several competing models of the 5/2 state. We investigate transport properties for two proposed Abelian states: $K = 8$ state and 331 state, and four possible non-Abelian states: Pfaffian, edge-reconstructed Pfaffian, and two versions of the anti-Pfaffian state. We also show that the non-equilibrated anti-Pfaffian state has a different resistance from other proposed states in the bar geometry.

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Chenjie Wang
Physics Department, Brown University

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