

Abstract Submitted
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Quantum Hall viscosity of Hierarchy States THORS HANS HANSSON, MIKAEL FREMLING, Stockholm University, JUHA SUORSA, Nordita — We describe a strategy for calculating the odd, non-dissipative viscosity for hierarchical QH states. Using previously developed techniques for expressing the wave functions on the plane in terms of conformal blocks, we can in simple cases construct the corresponding torus wave functions and show that they have good modular properties. Under certain assumptions, the QH viscosity can be directly extracted from these wave functions, and in the simplest case of the $\nu = 2/5$ Jain states, we have verified the result numerically. Our results are consistent with the general formula, given by Read, relating the QH viscosity to the average orbital spin of the electrons.

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