

Title:

Conformal invariance in two dimensional quantum liquids.

Abstract:

Infinite symmetries are at the heart of many exact solutions of various problems in classical and quantum physics. It is thus important to reveal such symmetries also in the context of two dimensional quantum fluids, such as the electron fluid in fractional quantum Hall effect, and in stochastic two dimensional flow, such as 2D turbulence. We show how Infinite symmetries arise when the two dimensional fluid may be represented as a many particle one-dimensional fluid when adopting a phase-space description.