



Contribution ID: 18

Type: 20 Min Talk

Current mean values in the XYZ model

Monday, 3 July 2023 14:30 (30 minutes)

The theory of Generalized Hydrodynamics (GHD) was introduced in order to describe the non-equilibrium transport properties of integrable quantum systems. It builds on the (infinitely many) continuity equations, that can be written for the conserved quantities present in these systems. Even though GHD itself does not rely on particle conservation on a fundamental level, all previous works treated $U(1)$ symmetric models. Therefore, it would be interesting to work out the theory for models lacking $U(1)$ symmetry. As a first step in this direction, in my talk I consider the mean values of the current operators in the spin-1/2 XYZ chain. Using a generalized Algebraic Bethe Ansatz and the algebraic construction of the current operators, I derive an exact formula for these current mean values in finite size, with a functionally identical form to that of the earlier results for the XXZ chains. The talk is based on the paper arXiv:2211.00698.

Primary author: PRISTYÁK, Levente

Presenter: PRISTYÁK, Levente

Track Classification: Participants Talks