Karpacz Winter Kindergarten of Theoretical Physics



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Presentation "Closing the gap in XXZ chain via magnon interactions"

Wednesday 22 May 2024 17:00 (30 minutes)

Abstract: "The XXZ model, being a generalisation of the Heisenberg model, is one of the most basic descriptions of magnetism. The description of its low lying excitations in 1D is especially difficult because the conventional approximation of linear spin waves breaks down. Despite that, a magnon description can still provide a meaningful insight into the excitation spectrum. I will show the influence of magnon-magnon interactions on the correlation function and effects it has on the energy gap of the spectrum."

Presenter: WALICKI, Mikołaj (University of Warsaw)

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