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Quenching Dynamics of Anisotropic Heisenberg Model through a Critical Point[1] WENSHUO LIU, DEEPAK IYER, NATAN ANDREI, Rutgers University — We study the quenching dynamics of the anisotropic Heisenberg model (XXZ model) with the Yudson contour representation, which is a general method of obtaining the dynamics of integrable models. It replaces the summation over all Bethe eigenstates by integrals over continuous momentum on carefully chosen contours. We begin by applying it to the few-particle case of XXZ model, and then focus on a quenching through the critical point: how a antiferromagnetic phase evolve with time into a spin fluid phase.

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