Seminar/Talk

Direct and inverse scattering for the continuum Calogero-Moser equation

Rupert Frank
LMU München

Host: Robert Seiringer

The CCM equation (also known as CalogeroMoser derivative nonlinear Schrdinger equation) is a nonlinear dispersive equation in 1+1 dimensions that is completely integrable. The corresponding Lax operator is a first order operator in the Hardy space on the real line. We develop a spectral theory of this operator, building Jost solutions, proving absence of singularly continuous spectrum and introducing scattering coefficients. We also prove trace formulas of Birman-Krein and Faddeev-Zakharov type. Finally, we propose an inverse scattering scheme for the solution of the CCM equation.The talk does not assume any previous knowledge of the CCM equation. It is based on joint work with Larry Read.

Tuesday, February 10, 2026 04:15pm - 05:15pm
Office Bldg West / Ground floor / Heinzel Seminar Room (I21.EG.101)

This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station. Please find a schedule of the ISTA Shuttle on our webpage: https://ista.ac.at/en/campus/how-to-get-here/ The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.