

Inverse Scattering for a Second-Order Discrete System via Transmission Eigenvalues

Authors : Abdon Choque-Rivero

Abstract : The Jacobi system with the Dirichlet boundary condition is considered on a half-line lattice when the coefficients are real valued. The inverse problem of recovery of the coefficients from various data sets containing the so-called transmission eigenvalues is analyzed. The Marchenko method is utilized to solve the corresponding inverse problem.

Keywords : inverse scattering, discrete system, transmission eigenvalues, Marchenko method

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