

INVERSE SPECTRAL PROBLEM FOR A CLASS OF NON-SELFADJOINT DIFFERENTIAL OPERATORS

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We consider a class non-selfadjoint Schrödinger operators with so-called energy dependent potentials. A solution of the corresponding inverse problem can be obtained by using the Riemann-Hilbert approach. New trace formulae and their possible application to some spectral inequalities are discussed. Such trace formulae are related to a non-linear system of differential equation of KdV type.