# Scattering Functions in terms of an effective non-hermitean hamiltonian

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For one dimensional scattering off finite range potentias we derive expressions for time delay, effective scattering dwelling distance, trapping probability and cross section in terms of the Reaction Matrix and an associated non-hermitian effective hamiltonian . We show the procedure to calculate poles using the effective hamiltonian. We also compare one-level and one-pole calculations with exact numerics for representative systems.