

Spectral Properties of an Impulsive Sturm–Liouville Operator with Complex Periodic Coefficients

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ABSTRACT

Our study focuses on exploring the spectral properties and scattering function of the impulsive operator generated by the Sturm–Liouville equation with complex periodic potentials. We introduce a new approach to investigate the spectral singularities and eigenvalues of the operator. Additionally, we establish the finiteness of eigen values and spectral singularities with finite multiplicities under specific conditions.
