
Limit-Periodic Operators with Homogeneous Spectra

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Abstract

We will discuss the spectra of limit-periodic Jacobi matrices and continuum Schrödinger operators. Specifically, the spectrum of a limit-periodic operator which obeys the Pastur-Tkachenko condition is homogeneous in the sense of Carleson. When combined with work of Gesztesy-Yuditskii, our theorem implies that the spectrum of a continuum Schrödinger operator with Pastur-Tkachenko potential has infinite gap length whenever the potential fails to be uniformly almost periodic.

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