

Workshop on Potential Theory and Applications, 2012, Szeged, Hungary
<http://www.math.u-szeged.hu/wspota2012/>

Isospectral torus for banded Hessenberg matrices

Steven Delvaux
(KU Leuven, Leuven)

The 'isospectral torus' theorem for tridiagonal Jacobi matrices characterizes the set of all block Toeplitz, Jacobi operators with given essential spectrum. In this talk we obtain an isospectral torus theorem for periodic banded Hessenberg matrices. Our formulation uses both the standard and the generalized spectrum of the matrices. Along the way we obtain strong and ratio asymptotics for polynomials and second kind functions associated to certain Nikishin systems, supported either on the real line or on star-like sets.