

Orthogonal polynomials on the unit circle and unitary matrices I

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In this talk we show the relation between the recently developed five-diagonal matrix representation of unitary operators, and the Szegő connection for orthogonal polynomials on the unit circle and the real line.

Some properties and applications of this representation are presented. In particular we show how to obtain families of Schur parameters whose associated measures have a fixed mass point, giving several explicit examples.