



Der Wissenschaftsfonds.



JOHANNES KEPLER
UNIVERSITY LINZ

SFB Colloquium Series

It is a pleasure to announce a guest lecture with the title

Periodic coordinates and a Magic Formula for Finite-gap CMV matrices

SPEAKER: **Benjamin Eichinger**, Lund University

TIME: Thursday, 20.12.2018, 13:45

LOCATION: JKU Linz, Science Park 3, S3 048

We prove a bijective unitary correspondence between 1) the isospectral torus of almost-periodic, absolutely continuous CMV matrices having fixed finite-gap spectrum E and 2) periodic block-CMV matrices satisfying a *Magic Formula*. This latter class arises as E -dependent operator Möbius transforms of certain generating CMV matrices which are periodic up to a rotational phase; for this reason we call them “MCMV”. Naturally, this has also consequences for the associated Schur functions. We show that for any Schur function associated to a finite-gap CMV matrix (and therefore with almost periodic Verblunsky coefficients) there exists a more general Nevanlinna-Pick interpolation problem with periodic interpolation data.

The talk is based on a joint work with J. S. Christiansen and T. VandenBoom.

The lecture will be followed by a general discussion.

The **SFB Colloquium Series** is supported by the **FWF Special Research Program (SFB) Quasi-Monte Carlo Methods: Theory and Applications**.