



**UNIVERSITÄT
BIELEFELD**



Faculty of Physics



Faculty of Mathematics



THE UNIVERSITY OF
MELBOURNE

Seminar

Bielefeld - Melbourne Random Matrices

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Asymptotic densities of real eigenvalues of asymmetric real random matrices

Spectra of asymmetric random matrices have been studied for decades. Despite this, densities of real eigenvalues are not yet fully understood. In particular, their large- N form is obtained through elaborated asymptotic analysis of the finite size results. This is in a strong contrast with the complex densities, for which various tools like Feynman diagrams, cavity equations and free probability provide large- N formulas without the need to solve finite size models.

This talk aims at filling this embarrassing gap.

I will provide a simple formula relating the asymptotic density of real eigenvalues with the asymptotic density of complex eigenvalues and discuss its applicability.

Wednesday, 23 June 2021, 0900 hrs CEST

Zoom Conference Call— Please contact Gernot Akemann
(akemann@physik.uni-bielefeld.de) for details regarding access