



**UNIVERSITÄT
BIELEFELD**



Faculty of Physics



Faculty of Mathematics



THE UNIVERSITY OF
MELBOURNE

Seminar

Bielefeld - Melbourne Random Matrices

Henry Taylor

University of Bristol

A matrix model of a non-Hermitian beta ensemble

I will introduce the first random matrix model of a complex beta ensemble. The main feature of the model is that the exponent beta of the Vandermonde determinant in the joint probability density function (j.p.d.f) of the eigenvalues can take any real positive number. However, when beta=2, the j.p.d.f. does not reduce to that of the Ginibre ensemble, but it contains an extra factor expressed as a multidimensional integral over the space of the eigenvectors.

This is joint work with Francesco Mezzadri and can be found on arXiv:2305.13184.

**Wednesday, 14 June 2023,
0900 hrs CEST**

Zoom Conference call— Please contact Lucas Hackl
(Lucas.Hackl@unimelb.edu.au) for details regarding access