



**UNIVERSITÄT
BIELEFELD**



Faculty of Physics



Faculty of Mathematics



THE UNIVERSITY OF
MELBOURNE

Seminar

Bielefeld - Melbourne Random Matrices

Benjamin McKenna

Harvard University

Extremal statistics of quadratic forms of GOE/GUE eigenvectors

We consider quadratic forms evaluated at GOE/GUE eigenvectors, like those studied in the context of quantum unique ergodicity. Under a rank assumption, we show that, in order to compute their extremal statistics, it suffices to replace the eigenvectors with independent Gaussian vectors. By carrying out some representative Gaussian computations, we thus find Gumbel and Weibull limiting distributions for the original problem. Joint work with László Erdős.

**Wednesday, 14 December 2022,
0900 hrs CEST**

Zoom Konferenzschaltung— Please contact Leslie Molag
(lmolag@math.uni-bielefeld.de) for details regarding access