



UNIVERSITÄT
BIELEFELD



Faculty of Physics



Faculty of Mathematics



THE UNIVERSITY OF
MELBOURNE

Seminar

Bielefeld - Melbourne Random Matrices

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University of Melbourne

Dip-ramp-plateau and some random matrix inter-relations

Dip-ramp-plateau refers to the graphical shape of the average of the quadratic statistic $|\sum_{j=1}^N e^{ik\lambda_j}|^2$, which in turn is closely related to the spectral form factor. This has received prominence in recent studies of the SYK model and many body quantum chaos. For the GUE, a result of Brézin and Hikami from 1997 gives an identity relating this to the cumulative distribution of the density of the LUE with Laguerre parameter $a=0$. A derivation will be given, due to Okuyama, which can be generalised to show that for the LUE this statistic can be expressed in terms of the cumulative distribution of the density of the JUE with parameter $b=0$. Some scaling limits will be discussed.

Wednesday, 30 September 2020, 0900 hrs CEST

Zoom Konferenzschaltung— Please contact Anas Rahmann
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