UNIVERSITÄT BIELEFELD

Faculty of Physics
Faculty of Mathematics

THE UNIVERSITY OF MELBOURNE

Seminar

Bielefeld - Melbourne Random Matrices

Dr. Roman Riser

University of Haifa

Power Spectrum Analysis and Zeros of Riemann Zeta Function

By the Bohigas-Giannoni-Schmit conjecture (1984), the spectral statistics of quantum systems whose classical counterparts exhibit chaotic behavior are described by random matrix theory. An alternative characterization of eigenvalue fluctuations was suggested where a long sequence of eigenlevels has been interpreted as a discrete-time random process. It has been conjectured that the power spectrum of energy level fluctuations shows $1/\omega$ noise in the chaotic case, whereas, when the classical analog is fully integrable, it shows $1/\omega^2$ behavior.

Wednesday, 29 July 2020, 0900 hrs CEST

Zoom Konferenzschaltung— Please contact Anas Rahmann (anas.rahman@unimelb.edu.au) for details regarding access