



UNIVERSITÄT  
BIELEFELD

Fakultät für Physik

# Rostyslav Kozhan

## Uppsala University

# Rank One Perturbations of Classical Beta-ensembles

We use Dumitriu-Edelman tridiagonal matrix models to compute the joint eigenvalue distribution of rank one non-Hermitian perturbations of classical ensembles of random matrices (Gaussian, Wishart, chiral Gaussian), as well as their beta-analogues. Same method can be applied to the computation of the eigenvalue distribution for *Hermitian* rank one perturbations of chiral Gaussian ensembles, as well as rank one *multiplicative* non-Hermitian perturbations of each of the above ensembles. Part of the results is a joint work with G. Alpan.

**Wednesday, 11 May 2022,  
09:00 via Zoom  
[www.physik.uni-bielefeld.de](http://www.physik.uni-bielefeld.de)**