



**UNIVERSITÄT
BIELEFELD**



Faculty of Physics



Faculty of Mathematics



THE UNIVERSITY OF
MELBOURNE

Seminar

Bielefeld - Melbourne Random Matrices

Benoit Collins

Kyoto University, Japan

Matrix integrals in a tensor setup

We will describe the first part of a series of joint works with Luca Lionni and Razvan Gurau in which we generalize the study of HCIZ integrals to higher-order tensors. We obtain developments for the HCIZ integral and its logarithm that are new even in the original setup.

Time allowing, we will discuss applications to free probability theory and quantum information theory.

**Wednesday, 12 October 2022,
0900 hrs CEST**

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