19th Workshop: Noncommutative Probability, Noncommutative Harmonic Analysis and Related Topics with Applications, 31.07-6.08.2022, Będlewo

ABSTRACT

Marek Bożejko (Uniwersytet Wrocławski)

Conditional free probability and quantum channels

Abstract: We will present the following topics:

1. Conditional free probability scalar and operator-valued cases.

2. Main examples of quantum channels from harmonic analysis on free groups ,on Coxeter groups and q-second quantization.

3. Free product of quantum channels.

[1] M.Bozejko, S.Gal, W.Mlotkowski, Positive definite functions on Coxeter groups with applications to operator spaces and noncommutative probability, *Comm. Math. Phys.* 3619583-604 (2018).

[2] M.Bozejko, Conditionally Free Probability, *Operator Theory,Advances and Applications* 275, 139-147 (2019).