basque center for applied mathematics

Working Seminar
(MP-Mathematical Physics
Quantum Mathematics)

June 6, 13 & 20, 2017, 15:00-17:00

Ricardo CORREA da SILVA

DFMA - IF USP

NONCOMMUTATIVE LP-SPACES: THE TRACIAL CASE

Noncommutative measure and integration refers to the theory of weights, states, and traces on von Neumann algebras. In these talks, we will present in details the theory developed, initially, by Segal and Dixmier of a generalization of abstract integration to von Neumann algebras provided with a (normal, faithful and semifinite) trace. The natural continuation of this subject is the study of noncommuative Lp-spaces and the generalizations of its most important properties e.g. Hölder and Minkowiski inequalities, and duality of spaces with Hölder conjugated index. In the end, a brief sketch of how Haagerrup and Araki could generalize this ideas to von Neumann algebras that do not admit any nfs trace.

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EXCELENCIA SEVERO OCHOA

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