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**David Kerr, Universität Münster**

Title: McDuff factors and topological full groups

Abstract: It has been a longstanding program, tracing back to the beginnings of operator algebra theory in the work of Murray and von Neumann, to relate properties of infinite discrete groups to the structure of their associated von Neumann algebras. Over the last fifty years the McDuff property, i.e., tensorial absorption of the hyperfinite II_1 factor, has played a key role in the study of tracial von Neumann algebras (and, more recently, C*-algebras) as a generalized form of amenability attuned to questions of asymptotic centrality. We show that actions of amenable groups on the Cantor set, through the topological full groups and dynamical alternating groups that they induce, provide a rich source of examples of nonamenable groups whose von Neumann algebra has the McDuff property. In particular we exhibit the first such examples which are simple and finitely generated. This is joint work with Spyros Petrakos.