

The Oliver Club

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Christian Rosendal, University of Illinois at Chicago ***On Isometric Representations and Maximal Symmetry***

A classical result going back to Weyl and Auerbach states that any finite-dimensional Banach space admits an isometry-invariant inner product, which thus provides an optimal, namely Euclidean, norm on the space. This was extended by Sz. Nagy and Dixmier around 1950, who showed that if G is a bounded amenable group of invertible operators on a Hilbert space, there is a G -invariant inner product, and thus G can be seen as a group of unitary operators for another Euclidean norm. However, the question of whether every Banach space admits an optimal norm, realising maximal symmetry, has remained open for a number of years. We shall answer this and other related questions and indicate how this is related to Dixmier's unitarisability problem. (This is joint work with V. Ferenczi)



Thursday, April 14, 2011
at 4:25 PM in 406 Malott Hall

Refreshments will be served at 3:55 PM in the Mathematics Department lounge (532 Malott Hall).