

The Oliver Club

www.math.cornell.edu/~oliver/

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Descriptive Set Theory and the Classification of Separable Banach Spaces

We shall present a descriptive set theoretical perspective on the notoriously difficult problem of classifying separable Banach spaces up to isomorphism. On the one hand, we will offer proof that the complexity of the classification problem for separable Banach spaces is virtually the most complex classification problem in all of analysis and algebra; vastly more complex than, e.g., the classification problem for countable groups up to isomorphism. As opposed to this very negative result, we shall on the other hand make progress on the program of Timothy Gowers that attempts to classify Banach spaces, not explicitly, but rather through determining their “minimal components.”



This is joint work with V. Ferenczi and A. Louveau.

Thursday, October 9, 2008
at 4:25 PM in 406 Malott Hall

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