Combinatorics Seminar

Wednesday, April 3rd, 2024

4:00-5:00pm in Hume 321

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Paradoxical Decompositions and Colouring Rules

ABSTRACT

A colouring rule is a way to colour the points x of a probability space according to the colours of finitely many measure preserving transformations of x. The rule is paradoxical if the rule can be satisfied a.e. by some colourings, but by none whose inverse images are measurable with respect to any finitely additive extension for which the transformations remain measure preserving. We show that there is a paradoxical colouring rule when the rule is continuous and we show that proper colouring can be paradoxical.