UNIQUE AMENABILITY OF SUBGROUPS OF THE SYMMETRIC GROUP ACTING ON THE INTEGERS

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In an article published in 1994 in the *Journal of Functional Analysis* — Volume 126, pages 7 to 25, to be precise — Matt Foreman constructed an amenable, discrete group with a unique amenable action on the integers assuming various set theoretic hypotheses such as $\mathfrak{p} = \mathfrak{c}$ or $\mathfrak{u} = \aleph_1$. This two hour tutorial will introduce amenability, provide the motivation for Foreman's result, explain the necessary set theoretic notions and describe most of the details of Foreman's arguments. The goal of the talks will be to supply those interested with enough background to begin working on the outstanding open questions in this area at the juncture of abstract harmonic analysis and set theory.