# Indecomposable sofic approximations

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Abstract: We shall study a class of extreme sofic approximations, that cannot be decomposed into two different sofic approximations. A result of Elek and Szabo can be restated with this language as: a group is amenable iff every sofic approximation is indecomposable. We shall construct examples of indecomposable sofic approximations for residually finite groups and if time allows, we shall generalize this to residually amenable groups.