

From IETs to Rank-1 Maps

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Abstract: In this talk I outline my mathematical journey since working with Giovanni Forni as a postdoc at the University of Maryland. I begin by discussing interval exchange transformations, specifically dynamical properties of the self-similar variety. The general theme of the talk is the incompatibility of rigidity and weakly mixing in certain cases, even though the generic map satisfies both. I end with an overview of work with Jon Fickenscher on bounding the partial rigidity of rank-1 maps with a bounded number of cuts and bounded spacer sequence. I will outline the proof and provide examples that show our bound is sharp.