

SUBGROUPS OF INTERVAL EXCHANGE TRANSFORMATIONS.

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ABSTRACT. An *interval exchange transformation (IET)* is a bijective map $f : I = [0, 1) \rightarrow [0, 1)$ defined by a finite partition of I into half-open subintervals and a reordering of these intervals by translations. We denote by IET the group consisting in all IETs.

The IETs have been a very popular subject of study in ergodic theory: most papers on IETs concern specific dynamical and spectral properties (minimality, ergodicity, mixing properties \dots) of a single map.

In this talk, I will address certain questions on the group-theoretical structure of IET and the question I will focus on is what abstract groups can be represented as subgroups of IET.

I will discuss examples and properties of certain subgroups in IET. This is a joint work with Nancy Guelman.