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Dynamics of Generalized Interval Exchanges. Preliminary report.

Train tracks with a single vertex are, in a suitable sense, a generalization of interval exchange maps. In this talk, we shall consider recurrent train tracks with a single vertex. We shall call these generalized interval exchanges. These can be studied as a dynamical system by considering Rauzy induction (i.e splitting the track) in this context. This gives a refinement process on the parameter space of such generalized interval exchanges, analogous to the simplicial system studied by Kerckhoff [?] in the context of interval exchange maps. We show that, for generalized interval exchanges, the refinement process has a key dynamical property called *uniform distortion*, again analogous to Kerckhoff's results. An analog of Keane's conjecture which states that almost every generalized interval exchange is uniquely ergodic is derived as a consequence.

References

- [1] Kerckhoff, S.P *Simplicial systems for interval exchange maps and measured foliations* Ergodic Theory and Dynamical Systems (1985),5, 257-271

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