

# Interval exchange maps with episturmian dynamics

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Episturmian sequences are generalisations of sturmian sequences, the episturmian systems they generate are one of the simplest examples of system of low complexity. It has been known for a long time that a family of interval exchange maps admits a coding which gives episturmian sequences, but this coding is not generating. We study this family and show that, for almost all values of the parameter (for a family of measures on the parameter space), the interval exchange map is measurably conjugate to the symbolic system, but for some exceptional values, it is not uniquely ergodic, and the ergodic measures all project to the unique invariant measure of the sturmian system.