### SEMINARIO DE MATEMÁTICAS

# Departamento Académico de Matemáticas del ITAM

## Complexity of injective piecewise contracting interval maps

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#### Abstract

We characterize in terms of their complexity functions all the possible symbolic dynamics of injective piecewise contracting interval maps with arbitrary but finite topological partitions into subintervals. We obtain *Sturmian* worst case scenarios on finite alphabets from which follows a generalisation of the so-called *contracting rotations* previously studied in the literature to *contracting interval exchange transformations*.

(Joint work with E. Catsigeras and P. Guiraud.)

VIERNES 28 DE SEPTIEMBRE DE 2018, 13.00 H SALÓN B1, CAMPUS RÍO HONDO

