

SEMINARIO SISTEMAS DINÁMICOS DE SANTIAGO.

EXPOSITOR(A): Hugo Maturana (Universidad Católica Silva Henríquez)

TÍTULO: *Weakly aperiodic Wang subshifts with minimal alphabet size on free groups.*

RESUMEN: Motivated by the work of E.Jeandel and M.Rao [1], where the authors establish the minimal amount of $\mathbb{Z}^2$ -Wang tiles needed to produce a nonempty aperiodic $\mathbb{Z}^2$ -Wang subshift to be 11, as well as the article of Piantadosi [2] which develops some aspects of symbolic dynamics on free groups related to aperiodicity, we study Wang subshifts on $\mathbb{F}(k)$. We obtain that the minimal amount of Wang tiles needed to generate a nonempty weakly aperiodic Wang subshift on $\mathbb{F}(k)$ is 3, and characterize every such example.

This is a joint work with Michael Schraudner and Álvaro Bustos.

[1] Jeandel, E. and Rao, M. An aperiodic set of 11 Wang tiles. *Advances in Combinatorics*, 2021, doi:10.19086/aic.18614. hal-01166053v4

[2] Piantadosi, S. T.. Symbolic dynamics on free groups. *Discrete and Continuous Dynamical Systems*, 20(3), 725.

DÍA / HORA Lunes 29 de septiembre, 2025 / 16:30 - 17:30 hrs.

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