

## SEMINARIO SISTEMAS DINÁMICOS DE SANTIAGO

**EXPOSITOR(A):** Sebastián Barbieri (Universidad de Santiago de Chile)

**TÍTULO:** *Cellular automata and percolation in groups.*

**IDIOMA:** Inglés

**RESUMEN:** A famous theorem by Gilman shows that every cellular automaton over  $A^Z$  satisfies an important dynamical dichotomy with respect to any Bernoulli measure: either almost every configuration is sensitive to initial conditions, or the system is equicontinuous. We show that there exists a fundamental relationship between the existence of a non-trivial percolation threshold on the Cayley graphs of a given group  $G$  and the failure of this dichotomy. We use this to give a characterization of the countable groups where Gilman's dichotomy is satisfied, which correspond to the class of locally virtually cyclic groups.

This is a collaboration with Felipe García-Ramos and Siamak Taati.

**DÍA / HORA:** Lunes 30 de septiembre, 2024 / 16:30 - 17:30

**LUGAR:** Sala de Seminarios Maryam Mirzakhani, Departamento de Matemáticas, Campus Juan Gómez Millas, Universidad de Chile