



# DEPARTAMENTO de MATEMÁTICAS

## Seminario REY PASTOR

# SISTEMAS DINÁMICOS

### Special $\alpha$ -limit sets

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**Abstract:** In the introductory part of the talk we review several kinds of orbits, trajectories and their limit sets. Then we investigate the notion of the special  $\alpha$ -limit set of a point. For a continuous selfmap of a compact metric space, it is defined as the union of the sets of accumulation points over all backward branches of the map. We consider mainly the case of interval maps. We give examples showing how those sets may look like. For interval maps for which the set of all periodic points is closed, every special  $\alpha$ -limit set is closed. However, in general it is unknown even whether it has to be Borel.

### Día y lugar:

Jueves 12-diciembre-2019, 17:00 horas  
Sala Euler (planta baja)



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