# Seminario de Matemática Aplicada

## Miércoles, 24 de septiembre de 2014

**11:30 h.**, Aula Gris 1 (ICMat, Campus de Cantoblanco)

### Javier Burguete

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## Dinamo cinemática en flujos experimentales

**Resumen**:

A numerical study of the magnetic induction equation has been performed on von Karman type flows. These flows are generated by two co-axial counter-rotating propellers in cylindrical containers. Such devices are currently used in the von Karman sodium (VKS) experiment designed to study dynamo action in an unconstrained flow. The mean velocity fields have been measured for different configurations and are introduced in a periodic cylindrical kinematic dynamo code. Depending on the driving configuration, on the poloidal to toroidal flow ratio and on the conductivity of boundaries, some flows are observed to sustain growing magnetic fields for magnetic Reynolds numbers accessible to a sodium experiment.