

SEMINARIO
Departamentos de Física Teórica I y II
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**TITULO: Casimir effect and radiative heat transfer between 2D materials
(Chern Insulators and Graphene)**

LUGAR: FACULTAD DE CIENCIAS FÍSICAS UCM

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ABSTRACT:

Chern Insulators are a class of two-dimensional topological materials. Their electronic properties are different from conventional materials, and lead to interesting new physics as quantum Hall effect in absence of an external magnetic field. Here we will review some of their special properties and, in particular, we will discuss the radiative heat transfer and the Casimir effect between two planar Chern Insulators sheets. Finally, we will see how to control the intensity and sign of this Casimir force and the requirements to observe a repulsive Casimir force in the lab with those materials.