

**BENEMÉRITA UNIVERSIDAD AUTÓNOMA DE PUEBLA
INSTITUTO DE FÍSICA
“Ing. Luis Rivera Terrazas”**



**SEMINARIO SEMANAL
“Jesús Reyes Corona”**

**“Landscape (and surprises) of compact
objects with bosonic fields in GR”**

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In Einstein-Maxwell theory there are no solitons, there are uniqueness theorems for black holes, which have "no hair" and there are no balanced neutral multi-black hole solutions. We discuss, with concrete examples, how these different properties change in Einstein-Klein-Gordon and Einstein-Proca models, where the bosonic fields are candidates for ultralight bosonic matter, yielding a much richer landscape of solutions, both solitonic and with black holes, with some dynamical surprises.

**Auditorio del Instituto
Martes 10 de octubre de 2023
13:00 hrs**