

LOVE IS NOT JUST IN THE AIR

SEMINAR

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PAMU SEMINAR ROOM



Abstract

Tidal Love numbers provide us a handle to test the nature of compact objects, as well as theories of gravity. There have been several clarifications recently, which makes our understanding of these Love numbers better. But further investigations have led to more confusion. I plan to discuss these recent developments and the confusing nature of recent literature on these issues. I will show that the tidal Love numbers of a non-rotating black hole identically vanishes in the static case, which may not be true in the dynamical scenario. While for rotating black holes the situation is a bit more involved. Besides, I will also discuss fermionic perturbations leading to non-zero static Love numbers for black holes. I will also highlight some remarkable novel features, for ultra-compact objects as well as for quantum BHs.

Everyone is invited to attend