

ΑΡΙΣΤΟΤΕΛΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΟΝΙΚΗΣ

ΤΜΗΜΑ ΦΥΣΙΚΗΣ

ΣΕΜΙΝΑΡΙΟ

ΤΟΜΕΑΣ ΑΣΤΡΟΦΥΣΙΚΗΣ, ΑΣΤΡΟΝΟΜΙΑΣ ΚΑΙ
ΜΗΧΑΝΙΚΗΣ

Θέμα: **Strong field tests of General Relativity in the black holes arena**

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Ώρα: **15:00**

Περίληψη:

Gravitational wave observations will provide new insights on the nature of gravity in the high-curvature and non-linear regime, which has been poorly explored so far. Black holes are among the most genuine strong field predictions of General Relativity, and therefore they represent the ideal candidates to test the pillars of Einstein's theory. In this talk I will analyze some prospects and strategies developed to test gravity through gravitational waves signals produced by binary black hole sources. In particular I will focus on the constraints that such observations, supplied by current and future experiments, will be able to set on alternative theories of gravity.