ΑΡΙΣΤΟΤΕΛΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΕΣΣΑΛΟΝΙΚΗΣ
ΤΜΗΜΑ ΦΥΣΙΚΗΣ

ΣΕΜΙΝΑΡΙΟ

ΤΟΜΕΑΣ ΑΣΤΡΟΦΥΣΙΚΗΣ, ΑΣΤΡΟΝΟΜΙΑΣ ΚΑΙ ΜΗΧΑΝΙΚΗΣ

Θέμα: **Gravitational waves from binary neutron star systems: the post-merger spectrum and the Prony's methods**

Ομιλητής: **Prof. Roberto de Pietri**
University of Parma

Ημερομηνία: **Τρίτη** 14-11-2017

Τόπος: **Εργαστήριο Αστρονομίας, ΑΠΘ**

Ώρα: **12:00**

Περίληψη:

Binary Neutron Star systems are the most interesting source of gravitational wave signals and the associated signal will carry important information about the equation of state (EOS) of matter at high density. The main information on the EOS will be seen on the post-merger signal. In this talk, I will discuss the various steps that one needs to perform, starting from the EOS of matter at high density, to obtain the properties of the Gravitational Wave signal emitted during the merger. I will focus my talk on the post-merger signal and on the additional information that can be obtained using a modern variant of Prony's method to analyse the signal as a sum of complex exponentials.