

Responsable :  
Martine Logé  
■ 01 69 08 51 67

# SEMINAIRES



## Service de Recherches de Métallurgie Physique

DEN/DANS/DMN

Bibliothèque du SRMP – Bâtiment 520 – Pièce 109

**Ralph Gebauer**

*International Center for Theoretical Physics, Trieste (Italie)*

**Séminaire n°1 : Vendredi 7 octobre 2005 à 14h00**

*Time-dependent density functional theory*

In recent years Time-dependent Density Functional Theory (TDDFT) has become a standard tool for the investigation of excited states properties. In this talk I will present the formal framework of TDDFT and show how it is used in practice. Some typical TDDFT-results will help to illustrate the strengths, and the failures, of this approach.

**Séminaire n°2 : Lundi 10 octobre 2005 à 10h30**

*More than spectra : photochemistry and electron transport from TDDFT*

Most applications of TDDFT aim at calculating optical spectra. In this talk I will present some less common applications of the theory: going beyond linear response allows one to access a wide variety of exciting science: Interactions of matter with ultra-short intense laser pulses, nanoscale conductors that are driven away from equilibrium by an external voltage, or charge transfer in solar cells are just some examples which illustrate how TDDFT can be used in many different fields.

**N.B :** *Les visiteurs de nationalité étrangère sont priés de bien vouloir avertir impérativement 3 semaines à l'avance le Secrétariat et les visiteurs français 1 ou 2 jours avant le séminaire, de leur entrée sur le Centre.  
(Tel : 01 69 08 66 64 - Fax : 01 69 08 68 67)*