### The Department of Mathematics
### Faculty of Science

*cordially invites you for a lecture on*

## "Spectral Properties and Applications of $(k,\tau)$-regular sets: an overview"

### given by

## Professor Domingos Moreira Cardoso

### University of Aveiro, Portugal
**(***Author of books and monographs***)**

### on

### Monday 28th April 2008

### at

### 11.00 a.m.

### in

### Room 307 Maths & Physics Building

A (*k, t* )-regular set S is a vertex subset inducing a *k*-regular graph such that each vertex out of S has *t* neighbors in S. Started in 1981 by D. Thompson, this concept was further investigated (Cardoso/Rama, 2007). The (*k, t* )-regular sets formalize several classical problems: perfect matchings, Hamiltonian cycles and other spanning regular subgraphs. We present applications, the case of strongly regular graphs in particular.

*Abstracts are available from the secretary upon request.*

*For details please contact Prof. I . Sciriha on* [irene.sciriha-aquilina@um.edu.mt](mailto:irene.sciriha-aquilina@um.edu.mt)