ISTITUTO DI MATEMATICA APPLICATA E TECNOLOGIE INFORMATICHE (CNR)
DIPARTIMENTO DI MATEMATICA "FELICE CASORATI"
via Ferrata,1 – 27100 Pavia (Italia)

Seminario di Matematica Applicata

Martedì 2 marzo 2004 alle ore 16 a Pavia, nella Sala Conferenze dell'IMATI-CNR (ex IAN), la

Prof. Mabel Asensio
(Università di Salamanca)

terrà la conferenza:

Modelling of convection in forest fires

Abstract. The model presented joins the fire propagation equations in a 2D domain representing the surface where the fire takes place, and the air movement equations in a 3D domain representing the air layer above where the air movements occurs. As the air layer thickness is small compared with its length, an asymptotic analysis gives a 3D convective model governed by a 2D equation verified by a stream function. The model presented provides a 3D velocity wind field in the air layer under the influence of the fire but it is governed by a 2D equation, so that it can be coupled with 2D fire spread simulation models, taking into account two of the most relevant factors for the spread of a fire: the wind and the slope. The model is completed with some numerical examples.

La S.V. è cordialmente invitata.

☕ Dopo la conferenza sarà organizzato un breve rinfresco ☕