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

Seminario di Matematica Applicata

Mercoledì 9 Aprile alle ore 15 a Pavia, nella Sala Conferenze dell'IMATI-CNR (ex IAN), il

Prof. Ansgar Jüngel
(Università di Mainz)

terrà la conferenza:

Numerical simulation of macroscopic quantum models

Abstract. Usually, quantum systems are described by microscopic quantum models, like the Schroedinger or Wigner equation. In order to reduce the computational effort and to improve the modeling of the boundary conditions, macroscopic quantum models have been derived. In this talk we present three of these models: the quantum drift-diffusion, quantum hydrodynamic and viscous quantum hydrodynamic equations. We sketch the derivation of these models, give some results on the existence and non-existence of the solutions and show some numerical simulation results for a one-dimensional semiconductor tunneling diode.

La S.V. è cordialmente invitata.

☕ Dopo la conferenza sarà organizzato un breve rinfresco ☕