

Preliminary Program

METHODS AND PROBLEMS IN MATHEMATICAL PHYSICS

Dip. Fisica, Aula Teorici - 2 piano, Via Irnerio 46, Bologna,

Friday 22 February 2013 9:15-13:00 ; 14:00-18:45

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- **9:15-10:00** Rudolf Gorenflo (Berlin) : OPENING LECTURE
"Subordination in stochastic processes: a survey"
 - **10:00 -10:30** Enrico Scalas (Genova-Alessandria) :
"The fractional Poisson process and its application to finance"
 - **10:30 -11:00** : *Coffe Break (ex Bar Agraria)*
 - **11:00-11:30** Pino Suffritti (Sassari): "Problems in modelling
single-file diffusion of water in zeolites: simulations and recent
theory"
 - **11:30-12:00** Flavio Pons (Bologna): "Stochastic modelling of
heavy particles in turbulent flows"
 - **12:00-12:30** Giuliano Vitali (Bologna): "Applications and
Challenges of Mathematics and Physics in Applied Ecology"
 - **12:30-13:00** Gianni Pagnini (Bilbao): "Gaussian
subordination for symmetric space-time fractional diffusion
and the corresponding class of self-similar stochastic processes
with stationary increments"
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- 13:00-14:00** *Mini Lunch (ex Bar Agraria)*
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**14:00 – 14:30 Aldo Spizzichino (Computer Art, Bologna):
“Grafica e arte al computer: esperienze personali”**

**14:30-15:00 Antonio Volta (Bologna): “Scaling features in
rings”**

**15:00-15:30 Paolo Paradisi (Pisa): “Scaling analysis of brain
intermittent events: towards a index of consciousness”**

**15:30-16:00 José M. Carcione (Trieste) : “A generalization of
the Fourier pseudo-spectral method”**

- 16:00 -16:30 : *Coffe Break (ex Bar Agraria)*

**- 16:30 -17:00 : Davide Barbieri (Paris): "Geometric and
harmonic models of the functional architecture of the visual
cortex"**

**- 17:00- 17:30 Armando Bazzani (Bologna) : Urban traffic and
dynamical systems on networks**

**- 17:30-18:00 Giorgio Turchetti (Bologna): “Models for laser
acceleration of charged particles**

**- 18:00-18:45 Sergei Rogosin (Minsk) CLOSING LECTURE
“Mittag-Leffler functions: related topics and applications”**