

## Programma Assemblea Scientifica GNFM

**Montecatini, 4 - 6 Maggio 2017**

**Hotel Belvedere - Viale Fedeli, 10**

**Montecatini Terme**

### *Giovedì 4 Maggio*

09.00 – 09.10 Apertura lavori

09.10 – 09.40 **Elena AGLIARI** - *Some insights and advances in neural networks*

09.40 – 10.00 Raffaele VITOLO - *The symbolic computation of Hamiltonian operators for integrable systems*

10.00 – 10.20 Raffaele CARLONE - *A quantum hybrid with a thin antenna at the vertex of a wedge*

10.20 – 10.40 Chiara FRANCESCHINI - *Stochastic Duality and Orthogonal Polynomials*

10.40 – 11.00 Christian CHERUBINI - *On relativistic magnetohydrodynamical processes around rotating black holes*

11.00 – 11.20 Coffee Break

11.20 – 11.50 **Claudio CACCIAPUOTI** - *Interazioni di contatto per il problema a tre corpi come limiti di potenziali a corto range*

11.50 – 12.10 Marta ZOPPELLO - *Swimming by switching*

12.10 – 12.30 Antonio SELBITTO - *Nonlinear heat-transport equation beyond Fourier law: Application to heat-wave propagation in isotropic thin layers*

12.30 – 12.50 Marco ZAMPARO - *Apparent multifractality of self-similar Levy processes*

Pausa Pranzo

14.40-15.10 **Angiolo FARINA** - *Mathematical Models for Fluids with Pressure-Dependent Viscosity.*

15.10 – 15.30 Alessandro CIALLELLA - *Lorentz gas in a strip with obstacles*

15.30 – 15.50 Elena MAGNANINI - *A Monte Carlo method for Large Deviations applied to Erdos-Renyi random graphs*

15.50 – 16.10 Matteo CASATI - *Scalar multidimensional Hamiltonian operators of hydrodynamic type*

16.10 – 16.30 Coffee Break

16.30 – 17.00 **Giancarlo CONSOLO** - *Turing pattern formation in hyperbolic reaction-advection-diffusion models of vegetation for semi-arid landscapes*

17.00 – 17.20 Domenico FINCO - *Sullo stato fondamentale dell'equazione di Schroedinger su un grafo non compatto*

17.20 – 17.40 Marco FALCONI - *Potenziali effettivi nell'approssimazione quasi-classica.*

17.40 – 18.10 **Giuseppe FLORIO** - *Attaching and debonding phenomena in elastic strings*

18.10 – 18.40 **Luciano TERESI** - *Mathematical modelling of bio-hybrid and bio-inspired soft robots*

**20.00 Cena**

**21.00 – 22.00 Assemblea del GNFM**

### *Venerdì 5 Maggio*

09.00 – 09.30 **Daniele DIMONTE** - *Dynamics of a N-body Vortex State in a Bose-Einstein Condensate.*

09.30 – 10.00 **Emanuela Laura GIACOMELLI** - *Surface Superconductivity in Presence of Corners (for Type II Superconductors)*

10.00 – 10.20 Gaetano FIORE - *Travelling waves and a fruitful 'time' reparametrization in relativistic electrodynamics*

10.20 – 10.40 Dario BAMBUSI – *Teorema di Nekhoroshev per perturbazioni del moto centrale*

10.40 - 11.00 Coffe Break

11.00 – 11.30 **Francesco Carlo DE VECCHI** - *Symmetries of stochastic differential equations: theory and applications.*

11.30 – 11.50 Giancarlo GARNERO - *Moving Walls and Geometric Phases in the Dynamics of a Quantum Particle in a 1D Box*

11.50 – 12.10 Maria Clara NUCCI - *Alla ricerca delle simmetrie perdute*

12.10 - 12.30 Fabrizio DAVI - *Reaction-diffusion equations in the continuum physics of scintillating crystals*

12.30 – 12.50 Giulio BAU - *New variables for efficient orbit propagation of Solar System bodies*

Pausa Pranzo

14.30 – 15.00 **Stefano TURZI** - *Snap-buckling of a confined stretchable thin elastic sheet*

# ISTITUTO NAZIONALE DI ALTA MATEMATICA FRANCESCO SEVERI

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## GRUPPO NAZIONALE PER LA FISICA MATEMATICA

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15.00 – 15.30 **Jacopo CIAMBELLA** - *Elasticità nonlineare di schiume auxetiche*

15.30 – 15.50 Simonetta ABENDA - *Hyperelliptic KP solitons and the Toda system*

15.50 – 16.10 Giovanni Federico GRONCHI - *On the existence of connecting orbits for critical values of the energy*

16.10 – 16.30 Coffee Break

16.30 – 17.00 **Marilena LIGABO'** - *Condizioni al bordo quantistiche*

17.00 – 17.20 Pavlov MAKSIM - *Multi-Dimensional Conservation Laws and Integrable Systems*

17.20 – 17.50 **Giulia GIANTESIO** - *Modelli matematici per l'invecchiamento del tessuto muscolare-scheletrico*

17.50 – 18.20 **Giovanni NOSELLI** - *Fracture in epithelial tissues and polymer gels*

18.20 – 18.40 Tiziano PENATI - *Non existence of phase-shift discrete solitons in a non local dNLSmodel*

**20.00 Cena Sociale**

### *Sabato 6 Maggio*

9.00 – 9.30 **Lorenzo ZANELLI** - *Schrodinger spectra and the effective Hamiltonian of the weak KAM theory*

9.30 – 9.50 Gaetano ZAMPIERI - *Local and Nonlocal constants of motion in Lagrangian dynamics*

9.50 – 10.10 Giovanni ORTENZI - *Problemi di interfaccia per fluidi Euleriani*

10.10 – 10.30 Francesco DEMONTIS - *Su un problema tridimensionale inverso in ottica geometrica.*

10.30 – 10.50 Giulia BASTI - *Efimov effect for a three-particle system with two identical fermions*

10.50 -11.10 Coffee Break

11.10 – 11.40 **Andrea RAIMONDO** - *Affine opers and the Bethe Ansatz*

11.40 – 12.00 Cesare TRONCI - *Principi variazionali e strutture di Poisson per la dinamica quantistica*

12.00 – 12.30 **Daniele TANTARI** - *Meccanica statistica di sistemi multipartito non convessi*

**12.30 - Chiusura Assemblea**