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STAMM 2008 Symposium on Trends in Applications of Mathematics to Mechanics

Levico (Italy), September 22-25, 2008

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PROGRAM

MONDAY, September 22

9:00-9:05	Opening
9:05-9:45	Lev TRUSKINOVSKY — Towards multi-scale continuum elasticity theory
9:50-10:30	Errico PRESUTTI — Atomistic and continuum descriptions of fluids: some examples of their inter-relations
10:35-11:05	Coffee break
11:05-11:45	Giorgio BERTOTTI — Nonlinear-dynamical-system approach to magnetization dynamics in ferromagnets
11:50-12:10	Nobuyuki KENMOCHI — A model of grain boundary motion: existence of a weak solution
12:45	Lunch
15:30-16:10	Mathis PLAPP — Phase-field models for moving boundary problems: from the physics of phase transitions to applications in mechanics
16:15-16:35	Francesco MAINARDI — Kinetic equations for anomalous diffusion: a fractional calculus approach
16:35-17:05	Coffee break
17:05-17:25	Alexander PANCHENKO — A discrete model of phase transition in solids
17:25-17:45	Massimo TROVATO — On the formulation of the Quantum Extended Thermodynamics for the hot carriers in semiconductor materials
17:45-18:30	Poster session
19:30	Dinner

TUESDAY, September 23

9:00-9:40	Alexander MIELKE — Global energetic solutions for finite-strain plasticity with gradient regularization
9:45-10:25	Mario PULVIRENTI — TBA
10:30-11:00	Coffee break
11:00-11:40	Régis MONNEAU — TBA
11:45-12:05	Tomáš ROUBÍČEK — Rate-independent processes in solids
12:45	Lunch
15:30-16:10	Hans-Dieter ALBER — TBA
16:15-16:35	Michela ELEUTERI — Free boundary problems in partially saturated porous media
16:35-17:05	Coffee break
17:05-17:45	Gilberto M. KREMER — Interacting fluids in Cosmology
17:50-18:10	Riccarda ROSSI — Thermal effects in adhesive contact
18:10-18:30	Malte A. PETER — Homogenisation of a coupled nonlinear parabolic system in a two-phase medium
19:30	Dinner

WEDNESDAY, September 24

9:00-9:40	Andro MIKELIC — Analysis of model equations for stress-enhanced diffusion in coal layers
9:45-10:25	Tommaso RUGGERI — Identification of an average temperature and a dynamical pressure in a multi-temperature mixture of fluids
10:30-11:00	Coffee break
11:00-11:40	Benedetto PICCOLI — Traffic flow on networks: conservation laws models
11:45-12:05	Sandra CARILLO — Materials with memory: free energies & solution exponential decay
12:45	Lunch
15:30-16:10	Wolfgang H. MÜLLER — A multi-component theory of solid mixtures with higher gradients and its application to binary alloys
16:15-16:35	Czesław WOŹNIAK — On the tolerance modelling of functionally graded materials (FGM) with the locally-periodic microstructure
16:35-17:05	Coffee break
17:05-17:25	Takao YOSHINAGA — Instability and breakup process of a compound liquid jet
17:25-17:45	Giovanni ROMANO — The First Principle of Thermodynamics and the Virtual Temperatures Theorem
17:45-18:30	Poster session
19:30	Dinner

THURSDAY, September 25

9:00-9:40	Giuseppe MULONE — Optimal nonlinear stability for reaction-diffusion and fluid dynamics models
9:45-10:25	Wen-An YONG — Onsager-like relation and shock structures for hyperbolic balance laws
10:30-11:00	Coffee break
11:00-11:40	Antonio FASANO — Mathematical models for acid-mediated tumor invasion
11:45-12:05	Philippe BOULANGER — Linearly polarized waves in deformed incompressible nonlinear elastic materials
12:05-12:25	Robin J. KNOPS — An alternative approach to Saint-Venant's principle
12:45	Lunch
14:30-19:00	Free excursion organized by CIRM to visit the Castle of Trento and the town
19:30	Dinner