



PROGRAM

Monday May 29, morning session (Sala della Gloria, Via Trieste)

- 09.00-09.50 Registration
- 09.50-10.30 Conference opening
- 10.30-11.05 Ray Ogden, *Inclusion or exclusion of compressed fibres in the mechanics of fibrous soft biological tissues*
- 11.05-11.40 Luciano Teresi, *Heart-motion deformetrics*
- 11.40-12.15 Davide Ambrosi, *The mechanics of cell motility*
- 12.15-12.50 Alfio Grillo, *An Allen-Cahn theory of remodelling in fibre-reinforced biological tissues*

Lunch at Gambero Rosso, Via Cereto

Monday May 29, afternoon session (Aula 9, Via dei Musei)

- 14.30-15.05 Ferdinando Auricchio, *Virtual endograft deployment in the thoracic aorta as predictor of TEVAR migration*
- 15.05-15.40 Paolo Zunino, *A Finite Element Method for the interaction between microcirculation and tissue interstitium*
- 15.40-16.15 Jorge Tiago, *Boundary control problems in blood flow modeling: theoretical aspects and numerical examples*



Coffee break

- 16.40-17.15 Pasquale Ciarletta, *Mechanical causation of morphogenesis in living matter*
- 17.15-17.50 Paul Watton, *Mechanobiology of intracranial aneurysm evolution: modelling, reflections & directions*
- 17.50-18.25 Raimondo Penta, *Homogenized modeling for vascularized poroelastic tumors*

Tuesday May 30, morning session (Aula 9, Via dei Musei)

- 09.00-09.35 Gerhard Holzapfel, *The importance of considering the microstructure of soft biological tissues: a general fiber dispersion model with related analysis*
- 09.35-10.10 Mikhail Itskov, *Towards patient specific modeling of soft biological tissues*
- 10.10-10.45 Alexander Ehret, *On the role of water mobility for soft tissue biomechanics and mechanobiology*



Coffee break

- 11.15-11.50 Michel Destrade, *Waves in pre-stressed immersed plates and tubes: application to ultrasound elastography of thin-walled soft materials*
- 11.50-12.25 Alessio Gizzi, *Stress-driven anisotropic diffusion in active deformable media*
- 12.25-13.00 Francesco Landi, *Sarcopenia: Maths and Medicine for the diagnosis*

Lunch

Tuesday May 30, afternoon session (Aula 9, Via dei Musei)

- 14.30-15.05 Giuseppe Saccomandi, *Ut vis sic tensio*
- 15.05-15.40 Oliver Röhrle, *Modelling the neuromuscular system*
- 15.40-16.15 Giuseppe Zurlo, *Printing non-Euclidean solids*

Tour to Lake Garda and social dinner

Wednesday May 31, morning session (Aula 9, Via dei Musei)

- 09.00-09.35 Luigi Preziosi, *How nucleus mechanics and ECM topology influence the invasion of single cells and multicellular aggregates*
- 09.35-10.10 Giuseppe Pontrelli, *Mathematical modelling of variable porosity coatings and dual drug release*
- 10.10-10.45 Donatella Donatelli, *Existence of global in time weak solutions for nonlinear models for tumor growth*



Coffee break

- 11.15-11.50 Rodolfo Repetto, *Mathematical models of fluid flow in the vitreous chamber of the eye*
- 11.50-12.25 Anna Pandolfi, *Modeling the air puff test in the human cornea with a meshfree fluid-structure interaction approach*

Conference closing