



May 28-29

Biophysics@Rome2015

May 28

9.00 -10.00 REGISTRATION&BREAKFAST, POSTER BILLPOSTING (**GAZEBO Area**)

10.00-10.20 Institutional Greetings & Conference Opening (**Aula Convegna**)

SESSION 1: MICROSCOPY, IMAGING & SPECTROSCOPY Chairs: V. Mussi, A. Notargiacomo

10.20-11.00 **Invited Talk: A. DIASPRO**

Nanoscopy 2.0

11.00-11.15 **A. Caporale**

Anomalous diffusion γ -imaging model provides new information on spinal cord microstructure

11.15-11.30 **M. Fratini**

Simultaneous 3D imaging of the micro-vascular network and the neuronal system in a mouse spinal cord

11.30-11.45 **S. Schutzmann, LOT QuantumDesign srl**

FluidFM: a powerful new tool that combines nanofluidics with AFM

11.45-12.00 **E. Malucelli**

Single or large population cell analysis? Pitfalls and advantages of different strategies for elemental quantification in cells

12.00-12.15 **S. Bistarelli**

AFM evidences of surface modifications in MCF-7 cell line induced by MWCNT

12.15-13.30 LUNCH

13.30-14.30 COFFEE BREAK & POSTER SESSION (**GAZEBO Area**)

SESSION 2: MATERIALS, DEVICES & SENSORS Chairs: M. Girasole, D. Cannatà, F. Di Pietrantonio

14.30-15.10 **Invited Talk: M. DINESCU**

"Writing" by laser induced forward transfer: bio and sensing applications

15.10-15.25 **R.M. Montoreali**

Visible photoluminescence of color centers in LiF crystals exposed to 6 MV x-ray clinical beams

15.25-15.40 **M. Fosca**

Doped calcium phosphate based bone cements for biomedical applications

15.40-16.40 COFFEE BREAK & POSTER Session (**GAZEBO Area**)

16.40-16.55 **G. Longo**

A nanomotion sensor to characterize nanoscale movements of biological systems

16.55-17.10 **M. Chinappi**

Nanopore tweezers: voltage controlled trapping of analytes for nanopore sensing

17.10-17.25 **F. Cecconi**

Protein translocation through graphene nanopores

17.25-17.40 BEST POSTER AND IMAGE CONTEST WINNER LISTS



May 29

SESSION 3: MODELING & SIMULATIONS Chairs: **M. Celino, L. Businaro**

9.00 -09.40 Invited Talk: G. BIANCONI

Multilayer networks as new framework for characterizing biological interactions

09.40 -09.55 L. Guidoni

Exploring the molecular mechanisms of photosynthesis by ab initio molecular dynamics

09.55 -10.10 A. Barra

Natural computing in biochemistry: stochastic (bio)-logic gates

10.10 -10.25 D. Di Marino

MD and docking studies reveal that the functional switch of CYFIP1 is mediated by a butterfly-like motion

10.25 -10.40 A. Colosimo

Dynamic and Static simulations by Multi Agent Systems (MAS).

10.40-10.55 COFFEE BREAK

SESSION 4: KNOWLEDGE TRANSFER Chairs: **E. Giovine, A. Gerardino**

10.55 -11.35 Invited Talk: F. FILOCAMO

Multidisciplinary Research

11.35 -11.50 A. Convertino

Silicon Nanowire Forests for biosensing applications

11.50 -12.05 V. Velidandla, Zeta Instruments

Advances in Optical Metrology for Difficult Surfaces

12.05 -12.20 U. Rädler, IBIDI GmbH

Sample preparation in for high end imaging assays

12.20-13.30 LUNCH

13.30-15.00 COFFEE BREAK & POSTER SESSION (GAZEBO Area)

SESSION 5: NOVEL APPROACHES IN DIAGNOSTICS & THERAPY Chairs: **J. Rau, M. Benetti**

15.00 -15.40 Invited Talk: G. SALVIATI

Multifunctional 3C-SiC/SiO_x nanowires for a possible bimodal oncotherapy for deep-seated solid-tumors: in-vitro and in-vivo tests

15.40 -15.55 F. Mammano

Bystander responses to photodynamic therapy: critical involvement of gap junction communication, calcium and nitric oxide signaling

15.55 -16.10 S. Visentin

New squaraine dyes for photodynamic therapy

16.10 -16.25 M. Rocchia, Thermofisher Scientific

Label-free Cellular Analysis with Raman Imaging

16.25 -16.40 G. Meli

Conformational-selective interference with subcellular pools of A β oligomers in living cells: a new strategy to decipher Alzheimer disease

16.40 -16.55 P. Bolognesi

Disentangling molecular mechanisms leading to mutagenesis via ion-induced mass spectrometry

17.00 Closing Remarks, Best Poster and Image Contest Award Ceremony (**GAZEBO Area**)