

Single Molecule in Biology Workshop

SISSA June 23-24, 2015

Program – June 23, 2015

15:00 **Registration**

16:00 **Welcome address**

16:30 17:30 **Carlos BUSTAMANTE**

A Journey Through Cellular Processes: One Molecule at a Time

18:00 - 20:00 – Reception

Program – June 24, 2015

Chair: Bruno Samorì

08:30-09:10 **Miklos KELLERMAYER**

Single-molecule biology of the muscle cytoskeleton

09:10-09:50 **Ricardo GARCIA**

Advanced force microscopy and spectroscopy methods for single molecule processes in biology

09:50-10:30 **Claudio RIVETTI**

ppGpp and DksA modulate Escherichia coli RNA polymerase-promoter complex stability and DNA wrapping: a single-molecule study

10:30-11:00 COFFEE BREAK

Chair: Giuseppe Legname

11:00-11:40 **Motomasa TANAKA**

Latent structural variation in a yeast prion monomer determines strain phenotypes

11:40-12:20 Andrea RASPADORI

Conformational equilibria of the prion protein characterized by single-molecule force spectroscopy

12:20-14:00 LUNCH BREAK

Chair: Dan Cojoc

14:00-14:40 Marco CAPITANIO

Detection of sub-millisecond biomolecular interactions and protein conformational changes under constant tension

14:40-15:20 Alf HONIGMANN

Revealing membrane organization with optical nanoscopy

15:20-16:00 Francesca CELLA - ZANACCHI

Light sheet based super resolution imaging of thick samples

16:00-16:30 COFFEE BREAK

Chair: Giuseppe Legname

16:30-17:10 Ciro CECCONI

Direct Observation of Calcium-dependent Misfolding in Single Neuronal Calcium Sensor-1 Molecules

17:10-17:50 Gijs WUITE

Acoustic Force Spectroscopy (AFS)

17:50-18:00 Closing Remarks