



# BIOSYSTEMS, ENERGY, AND CULTURAL HERITAGE: MATERIALS ENHANCEMENT FOR TECHNOLOGICAL APPLICATION



July 3<sup>rd</sup>, 2013 – Università di Roma Tor Vergata  
Aula Magna Macroarea di Scienze - Via della Ricerca Scientifica 1, 00133 Roma

## 9.00 Registration

### Welcome address

9:10 S. Licoccia, Director, NAST Center  
R. Lauro, Rector, Univ. of Rome Tor Vergata

Chair: P. Morales, ENEA Casaccia

9:20 S. Licoccia, Univ. of Rome Tor Vergata  
*Research and training at the NAST Center*

9:30 P. Picozza, Univ. of Rome Tor Vergata  
*Heralding a new era in cosmic ray physics: PAMELA, JEM-EUSO and CSES Missions*

10:00 R. Zamboni, CNR-ISOF  
*Multifunctional Composites Materials*

## 10:30 Coffee Break

### The META Project

Chair: S. Licoccia, U. of Rome Tor Vergata

10:50 G. Balestrino, Univ. of Rome Tor Vergata  
*Materials interphase enhanced properties*

11:10 P. Morales, ENEA Casaccia  
*Nanotechnology for the bio-inorganic surface*

11:30 M. Venanzi, Univ. of Rome Tor Vergata  
*Peptide self-assembled monolayers as a new tool for bioinspired nanotechnology*

11:50 R. Senesi, Univ. of Rome Tor Vergata  
*Inelastic neutron scattering on porous anode SOFC materials at the Spallation Neutron Source – ORNL*

12:10 C. Arcangeli /F. Buonocore, ENEA Casaccia, Rome  
*Ab initio calculations and molecular dynamics simulation of peptide-TiO<sub>2</sub> interaction*

## 12:30 Lunch

### Other Projects

Chair: A Canini, U. of Rome Tor Vergata

14:00 G. Novelli/M. Talamo, Univ. of Rome Tor Vergata  
*Improving quality of life by a translational medicine perspective*

14:20 A. Desideri/M. Falconi, Univ. of Rome Tor Vergata  
*Temperature dependent protein encapsulation in self-assembled DNA nanocages*

14:40 M. Bottini/N. Rosato, Univ. of Rome Tor Vergata  
*"Bionano" research lines*

15:00 R. Lelli, Univ. of Rome Tor Vergata  
*Ancient biomolecules and the reconstruction of human population history*

15:20 L. Bruno, Univ. of Rome Tor Vergata  
*A multidisciplinary approach for the conservation and valorization of Cultural Heritage*

## 15:40 Coffee Break

Chair: C. Andreani, U. of Rome Tor Vergata

16:00 S. C. Smith, Director, CNMS (ORNL, USA)  
*The Center for Nanophase Materials Science: a strategic overview*

16:30 U. Santamaria, F. Morresi, Lab. Diagnostica Musei Vaticani  
*From 2D-3D imaging UV/VIS/IR to microsampling analysis*

16:50 G. Festa, Univ. of Rome Tor Vergata  
*Neutron and X-ray imaging for Cultural Heritage research*

17:10 A. Mosca, Univ. of Rome Tor Vergata  
*Ab-initio computational methods for the calculation of optical properties applied to cultural heritage*

17:30 Concluding Remarks

please register to: [segreteria@centronast.it](mailto:segreteria@centronast.it)

