The Abdus Salam International Centre for Theoretical Physics

Workshop on Ion Beam Studies of Nanomaterials: Synthesis, Modification and Characterization

Organizer(s): Directors: A.P. Pathak, P. Mazzoldi, G. Lulli; C. Tuniz (ICTP Local Organizer)
Trieste - Italy, 26 June 2006 - 1 July 2006

Final programme

Registration (AGH) & Administration Formalities (Fermi B.) (Room:Adriatico Guest House Giambiagi Lecture Hall)

26 June 2006

08:40 - 09:30	**Registration**
09:30 - 10:00	**Welcome & Introduction - Prof. A. Pathak, OPENING - Prof. K.R. Sreenivasan, Remarks - C. Tuniz**
10:00 - 10:30	--- Coffee Break ---
10:30 - 11:30	**L. C. Feldman (Vanderbilt Univ. USA)** **Semiconductor-Dielectric Interfaces in the Nano Age**
11:30 - 12:30	**G. Lulli (CNR, Bologna)** **Fully atomistic approach for ion channeling analysis of defects in Si**
12:30 - 14:00	--- Lunch ---
14:00 - 15:00	**Z. Miskovic (Univ. Waterloo, Canada)** **Ion channeling through carbon nanotubes**
15:00 - 15:30	--- Coffee Break ---
15:30 - 17:00	**Presentations by Participants**

Tuesday 27 June (Room:Adriatico Guest House Giambiagi Lecture Hall)

27 June 2006

09:00 - 10:00	**L.C. Feldman** **Tutorial**
10:00 - 10:30	--- Coffee Break ---
10:30 - 11:30	**P. Mazzoldi (Univ. Padova, Italy)** **Synthesis and growth mechanisms of metal and metal alloy nanoparticles produced by ion implantation in glasses**
11:30 - 12:30	**G. Mattei (Univ. Padova, Italy)** **Stability of metal alloy nanoparticles**
12:30 - 14:00	--- Lunch ---
14:00 - 15:00	**A. P. Pathak (Univ. of Hyderabad , India)** **Ion Beam Applications in Defects and Strains studies in nano-sized structures**
15:00 - 15:30	--- Coffee Break ---
15:30 - 16:30	**B. Schmidt (Institute of Ion Beams, Dresden)** **Nanostructures by Ion Beams**
16:30 - 17:10	**Presentations by Participants**
17:10 - 17:55	

Wednesday, 28 June (Room:Adriatico Guest House Giambiagi Lecture Hall)

28 June 2006

09:00 - 10:00	**Qiang Gao (ANU, Australia)** **Quantum Dots and Nanowires for OptoElectronic Device Applications**
10:00 - 10:30	--- Coffee Break ---
10:30 - 11:30	**H. Bernas (CSNSM - CNRS, Orsay France)** **Controlled ion beam synthesis of nanoclusters in glasses**
11:30 - 12:30	**C. Trautmann (GSI, Darmstadt, Germany)** **Material modifications and nanoscience with MeV-GeV ions**
12:30 - 14:00	**Lunch**
14:00 - 15:00	**K. Nordlund (Univ. of Helsinki, Finland)** **Ion beam modification of carbon nanotubes**
15:00 - 15:30	--- Coffee Break ---
15:30 - 17:00	**Presentations by Participants**

Thursday, 29 June (Room:Adriatico Guest House Giambiagi Lecture Hall)

29 June 2006

09:00 - 10:00	**M. Lang (GSI, Darmstadt, Germany)** **Phase Transitions in Pressurized Solids Triggered by Energetic Heavy Ions**
10:00 - 10:30	--- Coffee Break ---
10:30 - 11:30	**D. K. Avasthi (NSC, New Delhi, India)** **Role of energetic ions in nano-structuring**
11:30 - 12:30	**D. ILA (Alabama A&M, USA)** **Ion Beam Assisted Formation of Nanolayers of Nanoscale Materials**
12:30 - 14:00	--- Lunch ---
14:00 - 15:00	**A. Dunlop (Ecole Polytechnique, France)** **Structural modifications induced in various types of materials under energetic clusters bombardment**
15:00 - 15:30	--- Coffee Break ---
15:30 - 17:00	**Presentations by Participants**

Friday, 30 June (Room:Adriatico Guest House Giambiagi Lecture Hall)

30 June 2006

09:00 - 10:00	**D. Fink (HMI Berlin, Germany)** **Nanoclusters and -tubes for Swift Ion Track Electronics**
10:00 - 10:30	--- Coffee Break ---
10:30 - 11:30	**E. Trave (Univ. of Padova, Italy)** **Energy transfer from metal nanostructures to rare earth: applications in photonics**
11:30 - 12:30	**C. Sada (Univ. of Padova, Italy)** **Tailoring optical properties of LiNbO3 by ion implantation**
12:30 - 14:00	--- Lunch ---
14:00 - 15:00	**Claudio Tuniz (ICTP, Trieste)** **Biomolecular tracing through accelerator mass spectrometry**
15:00 - 15:30	**Closing of the Workshop**