



UNIVERSITÀ DEGLI STUDI
DI TRENTO

Doctoral School in Physics
Department of Physics
University of Trento



III PhD WORKSHOP 2011

February 9th, 2011

8.45 - 18.45

lecture hall 109, via Sommarive, 18

Opening of the Academic Year of the PhD School in Physics

lecture hall 109, 15.30

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Lectio Magistralis

Neutrino oscillation physics

Stefano Dusini

INFN - Padova (PhD in Trento)

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February 9th, 2011

8.45 - 18.45

lecture hall 109, via Sommarive, 18

8.45 Opening

Prof. Giuseppe Dalba, head of the department of Physics

9.00 - 10.30 First Morning Session

chair: dr. Lidia Pieri

- **Gabriele Calzà**, "Education, teaching and communication of Physics"
- **Giovanni Acquaviva**, "The interpretation of horizon temperature through tunnelling methods and Unruh-deWitt detectors"
- **Anna Battisti**, "Computer simulation studies of biological molecules"
- **Marco Larcher**, "Understanding Disorder Using Ultracold Atoms"
- **Federica Bianco**, "Nonlinear optics in strained silicon waveguides"

Coffee break

11.00 - 12.30 Second Morning Session

chair: dr. Paolo Bettotti

- **Alessandra Santini**, "Nano-materials and nano-particles for hydrogen production"
- **Rajesh Pandiyan**, "Effect of Neodymium (Nd³⁺) doping on the structure, optical and photoluminescence properties of nanostructured TiO₂ thin films"
- **Massimo Eccher**, "Development of a photovoltaic dense array based on multijunction solar cells"
- **Giovanni Paternoster**, "Silicon Solar Cells for Concentration Photovoltaic Applications"
- **Fabrizio Sgrignuoli**, "Nanocrystalline Silicon Down-Shifter for Silicon Solar Cell"

12.15 Conclusive Remarks

Prof. Stefano Giorgini, deputy coordinator of the PhD School in Physics

Lunch break

14.30 - 15.30 Poster Session

15.30 Opening of the Academic Year

Prolusion by prof. Lorenzo Pavesi, director of the PhD school in Physics

15.45 - 16.45 Lectio Magistralis

chair: prof. Ignazio Lazzizzera

Neutrino oscillation physics
Stefano Dusini

16.45 - 18.00 Scientific break (coffee & physics)