Workshop on Advanced Methods for Interpretation of TEM, X-Ray and SIMS Measurements in Nano and Atomic Scale

1-3 June 2005, INSTITUTE OF PHYSICS, PAS
Warsaw, Poland
Chair Person: S.Kret E-mail: kret@ifpan.edu.pl

Methods:
- Synchrotron Radiation (XRSR, EXAFS, GIDAFS)
- Transmission Electron Microscopy (EELS, TEM, HRTEM)
- Secondary Ion Mass Spectroscopy (SIMS)
- Advanced Processing of Raw Data
- Modeling:
  - Molecular Dynamics (MD)
  - Finite Element Methods (FEM)

Object of Investigations:
- Quantum Heterostructures
- Integrated Devices
- Nanocrystalline Materials

Invited Speakers:
- M. Bersani (Povo-Trento, Italy)
  - Ultra shallow depth profiling by SIMS in microelectronic materials and processes
- S. Hovmöller (Stockholm, Sweden)
  - Computer aided electron crystallography as powerful tool to structure determination
- V. Holý (Masaryk, Czech Republic)
  - X-ray investigation of self-organized semiconductor nanostructures
- M. Hÿtch (Vitry-sur-Seine, France)
  - Geometric phase analysis for measuring strain in nanostructures: challenges and recent advances
- I. Demchenko (Warsaw, Poland)
  - EXAFS as a tool for investigation the local environment of Ge atoms in buried low-dimensional structures
- P. Galindo (Cádiz, Spain)
  - The Peak Pairs strain mapping algorithm and its application to HRTEM images
- E. Knudsen (Roskilde, Denmark)
  - Algorithms and instrumentation for generating 3d grain maps in polycrystals by 3DXRD
- B. Pałosz (Warsaw, Poland)
  - Diffraction study of nanocrystals under ambient and non-ambient conditions
- H. Renevier (Grenoble, France)
  - Grazing Incidence Anomalous Diffraction and Diffraction Anomalous Fine Structure (GIDAFS) to study nanostructures
- A. Rosenauer (Bremen, Germany)
  - Compostion evaluation by lattice fringe analysis (CELFA) in semiconductors nanostructures investigation
- A. Sanchez (Universidad de Cádiz, Spain)
  - Plasmon peak in EELS. The beginning of a new technique to determine the strain in semiconductor heterostructures
- K. Scheerschmidt (Halle, Germany)
  - Molecular dynamics modeling for enhanced interpretation of TEM images