The Australian National University

Weekly Bulletin

Research School of Physical Sciences & Engineeering

Volume 34 Number 30
1 – 7 August 2008

SCHOOL SEMINAR PROGRAM

Thursday 7 August 2008
4.00pm
"Nanoindentation-induced phase transformations in silicon: prospects for novel devices"
by Dr Simon Ruffell, EME
Light Refreshments will be provided in the Link Building Tea Room after the Seminar
Huxley Lecture Theatre
All Welcome

SCHOOL SEMINARS

EME Seminar
Monday 4 August 2008
11.00am
"Spectroscopic studies of nanoscale electronic materials and their interaction with their environment"
by Dr Matthew Halsall, Microelectronics and Nanostructures group, School of Electrical and Electronic Engineering Sackville Street Building the University of Manchester, UK
Link Building Seminar Room

Nuclear Physics Seminar
Monday 4 August 2008
11.15am
"Interrogating rare nuclei, dynamics and structure with direct reactions"
by Professor Jeff Tostevin, Department of Physics, University of Surrey, UK
Nuclear Physics Seminar Room
All welcome

Applied Mathematics Seminar:
Monday 4 August 2008
1.30pm
"Liquid Crystal Elastomers - The unusual response of nematic networks to strain, heat and light"
by Professor Mark Warner**,** Cavendish Laboratory, University of Cambridge
Applied Maths Seminar Room, Le Couter Building
[Contact, David Williams, ext 50680]

Nonlinear Physics Centre Seminar
Monday 4 August 2008
2.00pm
"Heterogeneous Multiferroics: Towards Intelligent Optoelectronics"
by Professor Alex Grishin, Department of Condensed Matter Physics, Royal Institute of Technology, Stockholm (Sweden)
Link Bldg Seminar Room, Oliphant Building

Applied Mathematics Seminar
Monday 4 August 2008
3.00pm
"Probing soft interfacial molecular and macromolecular interactions"
by Professor Shihe Yang, Dept of Chemistry Hong Kong University of Science and Technology.
Applied Maths Seminar Room, Le Couter Building

EME Seminar
Tuesday 5 August 2008
11.00am -12:00 noon
"Microscopic kinetics of capture, relaxation and recombination in ZnO- and GaN-based wide gap semiconductor nano-structures: nm-spatially- and ps-time-resolved cathodoluminescence spectroscopy"
by Jürgen Christen, Institute of Experimental Physics, Otto-von-Guericke-University Magdeburg, Germany
Link Building Seminar Room
All welcome

EME Seminar
Wednesday 6 August 2008
11.00 am
"Medium energy ion scattering: physics and application to high depth resolution profiling of shallow implant effects in Si"
by Professor Jaap van den Berg, Institute for Materials Research, University of Salford, UK
Link Building Seminar Room
All welcome

EME Seminar
Thursday 7 August 2008
11.00am
"Quantitative High-Resolution Chemical Characterization of Multilayer Thin Films Using a Combination of EFTEM, RBS and ERDA"
by Associate Professor Jörg K. N. Lindner, Institute of Physics, University of Augsburg, Germany
Link Building Seminar Room
All welcome

NLPC Seminar
by Professor Qian Niu, Department of Physics, University of Texas, Austin
Seminar 1: Berry phase effects in condensed matter
Wednesday 6 August at 2pm

Seminar 2: Nonlinear effects in atomic Bose-Einstein condensates
Thursday, 7 August at 2pm

FROM THE ACTING FACILITIES & SERVICES MANAGER

Drainage Improvements – Cockcroft Building
The School is having the storm water downpipes upgraded to the southern side of the Cockcroft Building. This work is scheduled to start next Monday 4/8/08. Can everyone please take care in this area.
Thank you.

STAFF MOVEMENTS

Dr Patrick Kluth, EME, will participate and give an invited talk at the 20th International Conference on the Application of Accelerators in Research and Industry to be held in Fort Worth, Texas, USA from 10 - 15 August 2008.

Professor Stephen Hyde, Mr Stuart Ramsden and Dr Olaf Delgado-Friedrichs (Applied Maths & ANUSF) are presenting a short course of lectures on 3- periodic surfaces, tilings and nets, from 4-8 August, comprising the second week of the International Center for Materials Research Summer School on Periodic Structures and Crystal Chemistry at UC Santa Barbara. They are also presenting invited talks at the ICMR Workshop in Santa Barbara on Design and Synthesis of New Materials (August 1-2).

VISITORS

The Nonlinear Physics Centre would like to welcome Professor Anatoly Sukhorukov from Lomonosov Moscow State University who is visiting from 23 July - 21 August 2008.

Theoretical Physics welcomes Professor Sang-Hoon KIM from Mokpo Maritime University of South Korea as a visiting fellow from 4-25 August. During this period he will collaborate with Professor Mukunda Das.

SUB-COMMITTEE MEETING

A physics discipline sub-committee meeting will be held on 21 August at 1.00pm. This meeting will discuss the physics undergraduate teaching program and consider proposals for changes. With the increasing emphasis on education at ANU, all members of the physics community are encouraged to participate. Please send agenda items to: craig.savage@anu.edu.au. An agenda will be circulated before the meeting.

OBITUARY

Dr Vassili (also known as Vasili and Vassily) Yaminsky, formerly of the Department of Applied Mathematics, died in Adelaide on the afternoon of Sunday 13 July from a heart attack. His wife Dr Satomi Ohnishi, whom he met whilst they were both working at Applied Mathematics, was by his side when he died. Vassili's funeral was held in Adelaide before he was buried with his first wife Xenia in Canberra on Saturday 19 July.

V.V. Yaminsky (1948-2008)
Vassili Vladimirovich Yaminsky was born on November 5th 1948 in Moscow the son of Vladimir Yaminsky and Anna Yaminskaya. After graduating in Chemistry from Moscow University in 1972 he went on to gain his PhD, also in Chemistry at Moscow University, in 1976. As a boy, Vassili had a love of music that was inspired by his grandfather, who was a professional violinist. Later, his interests turned to movie making, which at one stage he considered as a possible career before devoting himself to science. Vassili married Xenia Borisovna Yaminskaya (nee Pospelova) on May 22nd 1976 in Moscow and in so doing became stepfather to Marina. In March the following year Xenia and Vassili had a boy called Feodor, completing their family. Vassili's love of movies persisted and found outlet in home videos

of his children, Marina and Feodor. Tragically, shortly after their arrival in Australia, Xenia died from complications of an operation performed in Russia.

After completing his PhD, Vassili was appointed as a senior research scientist in the Institute for Physical Chemistry of the Academy of Science, USSR, working on the measurement of surface forces with regard to the thermodynamics, stability and rheology of dispersions. He later worked in the surface forces group in YKI, Stockholm as a visiting scientist, first in 1988 and later in 1992. Vassili first came to the Department of Applied Mathematics in January 1992 as a visiting fellow for a period of five months to measure surface forces, at the invitation of Professor Barry Ninham. At the end of 1992 Vassili was offered a 3 year appointment and joined the ANU as a research fellow. He remained at the ANU up until May 2004 when he took up a position with Professor Roger Horn in the Ian Wark Institute, UniSA, Adelaide.

His scientific pursuits throughout his career were governed by two main interests, surface forces in colloid systems and the basic concepts and thermodynamics of capillarity. Unfortunately, his laboratory research was twice disrupted by fire, initially during his time in Russia and later at the Ian Wark Institute. Vassili invented several new approaches to the measurement of surface forces and his work was always characterized by a fresh approach and a dogged determination to tease out a deeper understanding that would result in a unifying concept. He was deeply moved by and devoted to the beauty of science. Vassili will be fondly remembered in the Department for his acerbic and delightfully obtuse sense of humour and his long, often tortuous, questions during seminars.