

Second announcement of the 10th IUVSTA School:

International Summer School on **Physics at Nanoscale**

30th May – 4th June 2011 *Devět Skal, Czech Republic*

Program Committee:

- H. H. Brongersma, Calipso, Eindhoven, NL
- I. Kamiya, Toyota Technological Institute, Nagoya, JP
- S. Maier, Imperial College, London, UK
- C. Teichert, University Leoben, Austria
- P. Varga, Technical University Wien, Austria

Organized by:

International Union for Vacuum Science, Technique and Applications together with

- Czech Nanoteam
- Institute of Physics, Academy of Sciences of the Czech Republic, Prague
- Brno University of Technology
- Masaryk University, Brno
- CEITEC
- Charles University, Prague
- J.E. Purkynje University, Usti nad Labem
- Czech Technical University, Prague
- Czech Physical Society
- Czech Vacuum Society

Contact for further information:

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The International Summer School will be held in the Czech Republic from 30th May to 4th June 2011. The school is a continuation of the traditional and highly successful series of summer schools on physics of thin films and surfaces held every three years in the Czech Republic.

The coming school will be devoted to the rapidly expanding field of "Physics at Nanoscale". Invited speakers from leading world laboratories will present the latest progress in the research fields concentrated to nanoscale, in particular

- Nanostructures, Surfaces and Thin Films
- Nano-Optics and Photonics
- Nanoelectronics and Spintronics
- Nanostructured Solar Cells.

The school is intended for young people, mainly PhD students and young researchers from both academia and companies.

Participants are invited to present their research interests and results during a poster session. A certificate of participation will be issued for recognition of the school attendance by universities.

Traditionally, the school will take place at Devět Skal in the relaxing environment of a small recreation resort hidden in the forests at the Czech-Moravian highlands, half way between Prague and Brno. The resort offers an ideal environment both for discussing science as well as relaxing afterwards.

We are looking forward to seeing you at the school !

Organizing committee:

in Brno: T. Šikola, L. Dittrichová, J. Humlíček, J. Spousta

in Prague: A. Fejfar, A. Vetushka, K. Mašek, P. Hedbávný, V. Matolín

SCHOOL VENUE:

Orea - Hotel Devět Skal Sněžné - Milovy 11, 592 02 Svratka Phone: (+420) 566 585 541 GPS: 49°40'4.58"N,16°5'22.86"E

REGISTRATION:

Please register via our web page:

www.fzu.cz/~iss

SCHOOL FEE:

includes board, lodging and the registration fee. It does not cover the transport costs. Please transfer the school fee **by May 15th 2011** to our account as follows:

for participants from abroad:

the school fee is 220 EUR

Bank name: Komerční banka a.s. Nám. Svobody 21, 631 31 Brno, Czech Republic account no.: **27-7494090297/0100** account name: **VYSOKE UCENI TECHNICKE V BRNE** IBAN: **CZ66 0100 0000 2774 9409 0297** swift: **KOMBCZPPXXX**

payment details: **5CCC** (where "ccc" is an ID number which will be sent to you by email upon registration at www.fzu.cz/~iss).

for participants from the Czech Republic:

the regular school fee is **5200 Kč**, for students from the Czech Republic the fee is reduced to **4600 Kč**. Banka: ČSOB a.s., Milady Horákové 6, 601 79 Brno Účet: **111043724/0300** Název: **VUT v Brně – Fakulta strojního inženýrství** IBAN: **CZ66 0300 0000 0001 1104 3724** swift: **CEKOCZPPXXX** variabilní symbol: **5ccc** (kde poslední trojčíslí ccc obdržíte mailem po registraci). **Daňový doklad -** Zasílá se plátcům do 14 dnů po skončení akce. K tomu je nezbytné a) u fyzických osob:jméno a adresa b) u právnických osob: název a adresa sídla, IČO, DIČ.

Preliminary program of the 10th IUVSTA International Summer School

Physics at Nanoscale

30th – 4st June 2011, Devět Skal, Czech Republic

Surfaces, interfaces:

Franz Giessibl, Regensburg University, Germany ► Study of surfaces by atomically resolved AFM

Klaus Wandelt, Bonn University, Germany

Surface Science of Metal/Electrolyte Interfaces

Pavel Jelínek, AS CR, Prague, Czech Republic ► Exploring Nano: what can we learn/expect from theoretical studies?

Nanostructures:

Christian Teichert, Montan University Leoben, Austria
 ► Nanostructure characterization by AFM
 ► Electrical characterization by conductive AFM

Lars Montelius, Lund University, Sweden

Nanowires for life science applications

Nanoelectronics and nanophotonics:

Walter Riess, IBM Zurich, Switzerland ► The Future of Nanoelectronics

Hong-jun Gao, Chinese Academy of Sciences, Beijing ► Nanoscale electronic devices

Thomas Cornelius, ESRF, Grenoble Mechanical behavior of single nanostructures

Oliver Fruchart, Institut Néel, Grenoble, France A short dive into nanomagnetism and spin electronics

Javier Aizpurua, CSIC, San Sebastian, Spain ▶ Plasmonic antennas for field-enhanced spectroscopy and microscopy

Energy and nanostructures:

Michael Londesborough, ASCR, Řež, Czech Rep. ► Energy – its role and resources

Ivan Gordon, IMEC, Belgium

►Thin film solar cell research: where nanotechnology meets photovoltaics

Jens Schneider, CSG Solar, Thalheim, Germany

"Reality is a bitch" - from lab to production

► Crystalline Silicon on Glass - a unique challenge for thin film PV

Markus Schubert, IPE Stuttgart University, Germany ► PV, biolayers, retina implants etc.

Monday 30.5.	Tuesd	ay 31.5.	Wedr	nesday 1.6.	Thur	sday 2.6.	Frida	iy 3.6.	Saturday
	7:30-8:30	breakfast	7:30-8:30	breakfast	7:30-8:30	breakfast	7:30-8:30	breakfast	breakfast
arrival	8:30-9:20	Giessibl	8:30-9:20	Gordon	8:30-9:20	Jelínek	8:30-9:20	Kern	
registration	9:20-10:10	Riess	9:20-10:10	S chneider	9:20-10:10	Gao	9:20-10:10	Aizpurua	departure
	10:10-10:40	coffee break	10:10-10:40	coffee break	10:10-10:40	coffee break	10:10-10:40	coffee break	
	10:40-11:30	Wandelt	10:40-11:30	Schubert	10:40-11:30	Cornelius	10:40-11:30	Montelius	
lunch	11:30-12:20	Gordon	11:30-12:20	Gao	11:30-12:20	Teichert	11:30-12:20	Kern	
13:20-13:30 opening		lunch		lunch		lunch		lunch	
13:30-14:20 Riess									
14:20-15:10 Wandelt	16:10-17:00	S chneider			16:10-17:00	Jelínek	15:30-16:20	Cornelius	
15:10-15:40 coffee break	17:00-17:20	coffee break	ex	cursion	17:00-17:20	coffee break	16:20-16:40	coffee break	
15:40-16:30 Giessibl	17:20-18:10	Schubert			17:20-18:10	Aizpurua	16:40-17:30	Fruchart	
16:30-17:20 Londesborough	18:10-19:00	Teichert			18:10-19:00	Fruchart	17:30-18:20	Montelius	
18:00-20:00 dinner	19:00-20:30	dinner	19:00->	buffet dinner	19:00-20:30	dinner	18:20-18:30	closing	
20:00 -> Londesborough	20:30 ->	poster session	19:00->	company evening	20:30-22:00	panel discussion	ban	quet	
student mixer				oonfire					