

Announcement of the
International Summer School:

Physics at Nanoscale

9th – 14th June 2014

*Devět Skal,
Czech Republic*

<http://iss.fzu.cz/>

Program Committee:

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

Organized by:

- 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. Purkyně University, Ústí nad Labem
- Czech Technical University, Prague
- Czech Physical Society
- Czech Vacuum Society

Contact for further information:

e-mail: iss@fzu.cz
web page: www.fzu.cz/~iss



 CEITEC

We would like to invite you to the International Summer School to be held at **Devět Skal** in the Czech Republic from **9th to 14th June 2014**. 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. Last school in 2011 brought together 166 participants from 15 countries.

The coming school will be devoted to the fascinating 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 in Devět Skal!

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 Svatka
Phone: (+420) 566 585 541
GPS: 49°40'4.58"N, 16°5'22.86"E

REGISTRATION:

Please register via our web page: <http://iss.fzu.cz/>

The **SCHOOL FEE** is **290 €** for participants from abroad or **6800 Kč** for participants from the Czech Republic. The fee includes all school costs (registration, accommodation, food and social parts, but not the transport to and from the school). Support for some participants from the Czech Republic is available - please contact the organizers.

For further information about the school please send an e-mail to iss@fzu.cz or look at the web page <http://iss.fzu.cz/> or contact directly the organizers:

Tomáš Šikola
Institute of Physical Engineering
Faculty of Mechanical Engineering,
Brno University of Technology
Technická 2,
616 69 Brno, Czech Republic
tel.: +420-541 142 707,
fax: +420-541 142 842
e-mail: sikola@fme.vutbr.cz

or

Antonín Fejfar
Institute of Physics AS CR
Cukrovamická 10,
162 53 Prague 6, Czech Republic
tel.: +420-220 318 501,
fax: +420-220 318 468
e-mail: fejfar@fzu.cz

School programme:

Monday 9.6.	Tuesday 10.6.	Wednesday 11.6.	Thursday 12.6.	Friday 13.6.	Saturday
	7:30-8:30 breakfast	7:30-8:30 breakfast	7:30-8:30 breakfast	7:30-8:30 breakfast	breakfast
arrival registration	8:30-9:20 H. Riel	8:30-9:20 J. Orava	8:30-9:20 G. Meyer	8:30-9:20 P. Schmutz	departure
	9:20-10:10 Ai Leen Koh	9:20-10:10 I. Crupi	9:20-10:10 P. Schmutz	9:20-10:10 K. Ensslin	
	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 G. Weiss	10:40-11:30 Ch. Becker	10:40-11:30 K. Poduska	10:40-11:30 U. Diebold	
	11:30-12:20 I. Crupi	11:30-12:20 P. Ruffieux	11:30-12:20 W. Schneider	11:30-12:20 A. Vaskevich	
lunch	lunch	lunch	lunch	lunch	
13:25-13:30 opening					
13:30-14:20 S. Kodambaka	15:20-16:10 Ch. Becker	excursion	15:20-16:10 G. Meyer	14:20-15:30 K. Poduska	
14:20-15:10 G. Weiss	16:10-17:00 H. Riel		16:10-17:00 J. Dostálek	15:30-16:20 J. Dostálek	
15:10-15:40 coffee break	17:00-17:20 coffee break		17:00-17:20 coffee break	16:20-16:40 coffee break	
15:40-16:30 Ai Leen Koh	17:20-18:10 P. Ruffieux		17:20-18:10 A. Vaskevich	16:40-17:30 W. Schneider	
16:30-17:20 S. Kodambaka	18:10-19:00 J. Orava		18:10-19:00 K. Ensslin	17:30-18:20 U. Diebold	
18:00-20:00 dinner	19:00-20:30 dinner		19:00-> buffet dinner	18:20-18:30 closing	
20:00 -> student mixer	20:30 -> poster session		19:00-> company evening	20:30-22:00 panel discussion	banquet

Topics:

Plasmonics	A. Vaskevich	Weizmann, IL	Plasmonic sensors: Materials, Methods, Mistakes
	J. Dostálek	AIT Austria	Plasmonics for biosensing of chemical and biological compounds
	I. Crupi	CNR-IMM Italy	Flexible thin film photovoltaics and plasmonics
Materials	Ch. Becker	HZB Germany	Crystalline Si thin films for photovoltaics, Nanophotonic light trapping
	J. Orava	Cambridge,UK	Amorphous chalcogenides and marginal glass-forming melts, non-volatile solid-state memories
	P. Ruffieux	EMPA, CH	Graphene and carbon nanomaterials
	K. Poduska	MUNF, Canada	Tracking the life cycle of a material through its structure, bridging the nanoscale with the macroscale
	P. Schmutz	EMPA, CH	Corrosion issues and electrochemical methodologies. Biodegradable Mg implants characterization
Nanodevices	H. Riel	IBM, CH	Semiconducting nanowires for various applications and molecular electronics
	S. Kodambaka	UCLA, USA	Role of Interface Structure on Electronic Properties of Heterostructured 2D Layers
	G. Weiss	UCI, USA	Single-Molecule Enzymology with Nanometer-Scale Electronics
	K. Ensslin	ETH, CH	Nanoelectronic devices
	W. Schneider	EPFL, CH	Spectroscopic manifestations of low-dimensional physics: A local view
Microscopy	Ai Leen Koh	Stanford, USA	Applications of environmental (scanning) transmission electron microscopy to study oxidation and hydrogenation phenomena in nanomaterials
	G. Meyer	IBM, CH	Atomically resolved scanning probe microscopy
	U. Diebold	TU Vienna	Oxide Surfaces at the Atomic Scale