



Announcement of the 16th IUVSTA School:

International Summer School on Physics at Nanoscale

12th – 17th June 2017

*Devět Skal,
Czech Republic*

Program Committee:

C. Teichert, University Leoben, Austria
H. Brongersma, Eindhoven University of Technology, NL
I. Gordon, IMEC, Leuven, Belgium
J. Aizpurua, CSIC San Sebastian, DIPC Donostia, Spain
L. Ranno, Institut Neel, CNRS, Grenoble, France
P. Varga, Technical University Wien, Austria

Organized by:

International Union for Vacuum Science, Technique and Applications together with

- Czech Academy of Sciences
- Brno University of Technology
- Masaryk University, Brno
- CEITEC Nano, Brno
- 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



We would like to invite you to the International Summer School to be held in the Czech Republic. 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.

Invited speakers from leading world laboratories will present the latest progress in the fields of Physics at Nanoscale, in particular

- Nanostructures, Surfaces and Thin Films
- Nano-Optics and Photonics
- Nanoelectronics and Spintronics
- Nanostructured Solar Cells
- Chemistry & life science applications

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 and results during a **poster session** (on June 13th). A certificate of participation will be issued for recognition of the school attendance by universities.

Part of the school dedicated to the solar energy utilization will focus on the recent developments of the high efficiency solar cells within project [NextBase](#) supported by the Horizon 2020 of EU. The school is also cofunded by the [Czech Academy of Sciences](#) through the [Strategy AV21](#) initiative. The school is supported by companies which will be present at the **company evening** (June 14th).

Traditionally, the school will take place in the [hotel Devět Skal](#) at Milovy 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. Šíkola, L. Dittrichová, J. Spousta
in Prague: A. Fejfar, A. Vetushka



REGISTRATION:

Please register at the web page:
<http://iss.fzu.cz/registration.php>

SCHOOL FEE:

includes board, lodging and the registration fee. It does not cover the transport costs. Please transfer the school fee **by May 31st 2017** to our account as follows:

for participants from abroad
the school fee is **320 EUR**

Bank name: **Fio banka, a.s., V Celnici 1028/10, Praha 1**
account holder: **Česká fyzikální společnost, Na Slovance 2, 182 21 Praha 8, Czech Republic**
IBAN: **CZ8620100000002900009675**
swift: **FIOBCZPPXXX**

payment details: **2017ccc** (where „ccc“ is an ID number which will be sent to you by email upon registration).

for participants from the Czech Republic
the school fee is **8600 Kč**

Název banky: **Fio banka, a.s., V Celnici 1028/10, Praha 1**
číslo účtu: **2900009675 / 2010**
název účtu: **Česká fyzikální společnost, Na Slovance 2, 182 21 Praha 8**
variabilní symbol: **2017ccc**
(kde poslední trojčíslí ccc obdržíte mailem po registraci).

We gratefully acknowledge support by companies which allowed us to use minimal school fee:



Physics at Nanoscale

12th – 17th June 2017

Devět Skal, Czech Republic

School speakers and topics:

Nano-Electronics

Paul S. Weiss (UCLA, U.S.A.)

Nanoelectronics: 1) Tutorial on Patterning across Scales, 2)

Cooperative Function in Atomically Precise Nanoscale Assemblies

Heike Riel (IBM, CH) (*to be confirmed*)

Nanoelectronic devices

Thomas Michely (Uni. Cologne, DE)

2D layers, 1D wires and 0D clusters

Nano-Spintronics

Roland Wiesendanger (Uni Hamburg, DE)

Magnetism on the Nanoscale: 1) From the Smallest Building Block

Units to Model-Type Atomic-Scale Spintronic

2) The Exciting Physics of Bottom-Up Constructed Atomic Spin Chains on a Metallic Substrate

Andrei Kirilyuk (Radboud Uni., NL)

Magnetization dynamics and nanomagnetism

Nano-Photonics

Olivier J. F. Martin (EPFL, CH)

Nonlinear Plasmonics

Uriel Levy (Weizmann Inst., IL)

Silicon Photonics and Plasmonics

Ferdinand Scholz (Uni. Ulm, DE)

GaN and related hetero structures

Nano-Photovoltaics

Pere Roca i Cabarrocas (Ecole Polytechnique, FR)

Silane plasmas: a wonderful toolbox for the synthesis of nanomaterials

Olindo Isabella (TU Delft, NL)

Photovoltaic Materials and Devices: 1) Classical 4n2 absorption limit explained and demonstrated, 2) Pushing the limit: light absorption in thin films

Lars Korte (Helmholtz Zentrum Berlin, DE)

Nanotechnology for Silicon Based Photovoltaics

Dave Cahen (Weizmann Inst, IL)

Perovskite solar cells & Bio-molecular Electronics: Electron Transport across Proteins

Nano-Chemistry & Materials

Gareth Parkinson (TU Vienna, AT)

Physics and Chemistry of Iron-Oxide Surfaces

Erik Reimhult (BOKU Vienna, AT)

Biologically Inspired Materials: 1) Functional hybrid core-shell nanoparticles, 2) Nanocolloids for health and hazard

Timetable of the 16th IUVSTA summer school on Physics at Nanoscale

Monday 12.6.	Tuesday 13.6.	Wednesday 14.6.	Thursday 15.6.	Friday 16.6.	Saturday
arrival registration	8:00-9:00 breakfast 9:00-9:50 Cahen 9:50-10:40 Parkinson 10:40-11:00 coffee 11:00-11:50 Reimhult 11:50-12:40 Cahen 12:40-14:00 lunch break 16:10-17:00 Riel 17:00-17:30 coffee 17:30-18:20 Roca 18:20-19:10 Reimhult 19:10-20:30 dinner poster session	8:00-9:00 breakfast 9:00-9:50 Martin 9:50-10:40 Weiss 10:40-11:00 coffee 11:00-11:50 Kirilyuk 11:50-12:40 Wiesendanger 12:40-14:00 lunch excursion 19:00-> company evening bonfire	8:00-9:00 breakfast 9:00-9:50 Martin 9:50-10:40 Korte 10:40-11:00 coffee 11:00-11:50 Isabella 11:50-12:40 Wiesendanger 12:40-14:00 lunch break 16:10-17:00 Korte 17:00-17:30 coffee break 17:30-18:20 Michely 18:20-19:10 Scholz 19:10-20:30 dinner panel discussion	8:00-9:00 breakfast 9:00-9:50 Kirilyuk 9:50-10:40 Isabella 10:40-11:00 coffee 11:00-11:50 Levy 11:50-12:40 Michely 12:40-14:00 lunch 14:00-14:50 Scholz 14:50-15:40 Levy 19:45-20:00 closing banquet	breakfast departure

School venue:

<https://goo.gl/maps/EsjcM9ytAcL2>

GPS: 49°40'07.2"N 16°05'22.1"E

Suggested transport:

To the school on 12th June 2017

By train to Žďár nad Sázavou

from Brno main station:

8. 20 Express train R 986 Sázava, arriving at 9.33

By train from Prague main station:

8. 04 Express train R 977 Porta Coeli, arriving at 10.28

There will be a school bus waiting at these trains for the final trip to Milovy, hotel Devět Skal.

From the school on 17th June 2017

Participants can use the school bus to the trains from Žďár nad Sázavou to

9.33 R 986 Sázava, arriving to Prague main st. at 11.51

10.28 977 Porta Coeli, arriving to Brno at 11.41

Please contact the organizers in case you need assistance when arriving at other times.

