



The 1st Adriatic School on Nanoscience, ASON-1, is the result of a joint initiative between the University of Jyväskylä, Finland, Joanneum Research, Graz, Austria and the Ruđer Bošković Institute, Zagreb, Croatia. The aim of the first School is to provide young scientists, primarily PhD students working in the nanosciences, with a systematic overview of modern nanoscience through selected contributions from the field's most relevant experts. Beyond that, it is intended to establish ASON as an international forum for the growing community of young scientists and engineers working in the fields of nanoscience and nanotechnology. In this manner ASON is conceived to flexibly adjust to encompass the most recent advances and developments in these rapidly evolving disciplines, including related characterisation techniques and applications.

The first School, ASON-1, will take place at the conference center of the Dubrovnik Palace Hotel, which is located in Dubrovnik, on the southern Adriatic coast of Croatia. Often described as the jewel in the Adriatic's crown, Dubrovnik, the traditional meeting point of East and West, is a town of unforgettable beauty and charm.

The scope of ASON-1, as indicated by the subtitle, will be the very basics of nanoscience. Specifically, this encompasses the formation of nanostructures from the atomic to the macroscopic scale. The first school is designed to establish the very basics. In this sense, it will suit a wide range of scientists in the field, regardless of their diverse backgrounds as (chemistry, physics, biology, etc). As mentioned in the introduction, the school will be focussed on the younger generation of nanoscientists, primarily PhD students, but, depending on available space, participation is also foreseen for scientists holding newly awarded (first half of 2010) doctoral degrees.

The registration fee is 350 €. The registration fee will cover admission to the lectures, accommodation costs from the 19th to the 23rd of September 2010, all meals including the conference dinner, a guided tour of Old Dubrovnik, the welcome party and transfers to and from the airport.

All participants will receive a Certificate of attendance with the suggested 2 ECTS points.

For more details please visit: <http://www.rathanea.hr/ason-1/index.html>

Invited Lecturers

Ulrich Hohenester, *University of Graz, Austria*

Harald Plank, *University of Graz, Austria*

Matti Manninen, *University of Jyväskylä, Finland*

Lorenzo Pavesi, *University of Trento, Italy*

Milorad Milun, *Institute of Physics, Zagreb, Croatia*

László Forró, *EPFL, Lausanne, Switzerland*

Nikola Kallay, *University of Zagreb, Croatia*

Olli Ikkala, *Aalto University School of Science and Technology, Finland*

Mladen Žinić, *Ruđer Bošković Institute, Zagreb, Croatia*

Simon Scheuring, *Institut Curie, Paris, France*

Ilpo Vattulainen, *Tampere University of Technology, Finland*

Andreas Zimmer, *University of Graz, Austria*

Preliminary Programme

Sunday, September 19, 2010

19.00 Welcoming reception

Monday, September 20, 2010

08.45 Opening ceremony

09.00 – 10.30 Nanoscience: Fundamentals and basic properties, Ulrich Hohenester, Institut für Physik, Karl-Franzens-Universität Graz, Austria

10.30 – 11.00 *Coffee break*

11.00 – 12.30 Nanoscience: Fabrication and characterization methods, Harald Plank, Institute for Electron Microscopy and Fine Structure Research, University of Technology, Graz, Austria

12.30 – 14.00 *Lunch*

- 14.00 – 15.30 From atoms to nanoscale, Matti Manninen, Dean, Faculty of Mathematics and Science, University of Jyväskylä, Jyväskylä, Finland
- 15.30 – 16.00 *Coffee break*
- 16.00 – 17.30 Nanostructures for photonics, Lorenzo Pavesi, Faculty of Science, University of Trento, Italy
- 17.45 – 18.45 *Oral poster presentations (I)*
- 18.45 – 20.00 *Poster session (I)*
- 20.00 – 22.00 *Dinner*

Tuesday, September 21, 2010

- 08.30 – 10.00 Quantization in two-dimensional metallic systems, Milorad Milun, Institute of Physics, Zagreb, Croatia
- 10.00 – 10.30 *Coffee break*
- 10.30 – 12.00 Carbon-based nanosystems, László Forró, Institute of Physics of Complex Matter, Lausanne, Switzerland
- 12.00 – 13.30 *Lunch*
- 16.00 – 19.00 *Excursion*

Wednesday, September 22, 2010

- 08.30 – 10.00 Dispersions of nanoparticles, Nikola Kallay, Faculty of Chemical Technology at the University of Zagreb, Croatia
- 10.00 – 10.30 *Coffee break*
- 10.30 – 12.00 Molecular systems self-assembly, Olli Ikkala, Aalto University School of Science and Technology, Finland
- 12.00 – 13.30 *Lunch*
- 13.30 – 15.00 Supramolecular approach to nano-structured systems, Mladen Žinić, Ruđer Bošković Institute, Zagreb, Croatia
- 15.00 – 15.30 *Coffee break*
- 15.30 – 17.00 Life at the nanoscale, Simon Scheuring, Research Director, Institut Curie – Research UMR-CNRS 168 Paris, France
- 17.00 – 18.00 *Oral poster presentations (II)*
- 18.00 – 19.15 *Poster session (II)*

20.00 – 23.00 Gala Dinner

Thursday, September 23, 2010

08.30 – 10.00 Biological physics and soft materials, Ilpo Vattulainen, Tampere University of Technology, Finland

10.00 – 10.30 *Coffee break*

10.30 – 12.00 Pharmaceutical nanotechnology: Drug delivery and drug targeting, Andreas Zimmer, Institute of Pharmaceutical Sciences, University of Graz, Austria

12.00 – 12.15 Closure

12.15 – 14.00 *Lunch*