

## The Nanowiring Network

The main objective of the nanowiring network is to embed a pool of postgraduates and young researchers in a multidisciplinary framework of research activities in the emerging field of science and applications based on the unique properties and opportunities offered by semiconductor nanowires. Our mission is to provide an excellent platform for the training of a generation that will be expected to play a leading role in developing new ideas and concepts for a truly new technology of the future. Attainment of our targets will make a substantial contribution to increased European competitiveness in one of the most important emerging technological fields. The integration of two leading companies underlines the strategic importance of the research subject. The active participation of the private sector gives additional value to the training of the early state researchers. Moreover, the synergy between partners from academia and from the private sector will contribute to expedite research activities towards a market maturity of nanowire based applications.



## Conference Location



## Chair

Prof. Dr. Angela Rizzi  
Dr. Joerg Malindretos

## Organization

Antje Spliethoff-Laiser

Tel: +49 551 39-4542

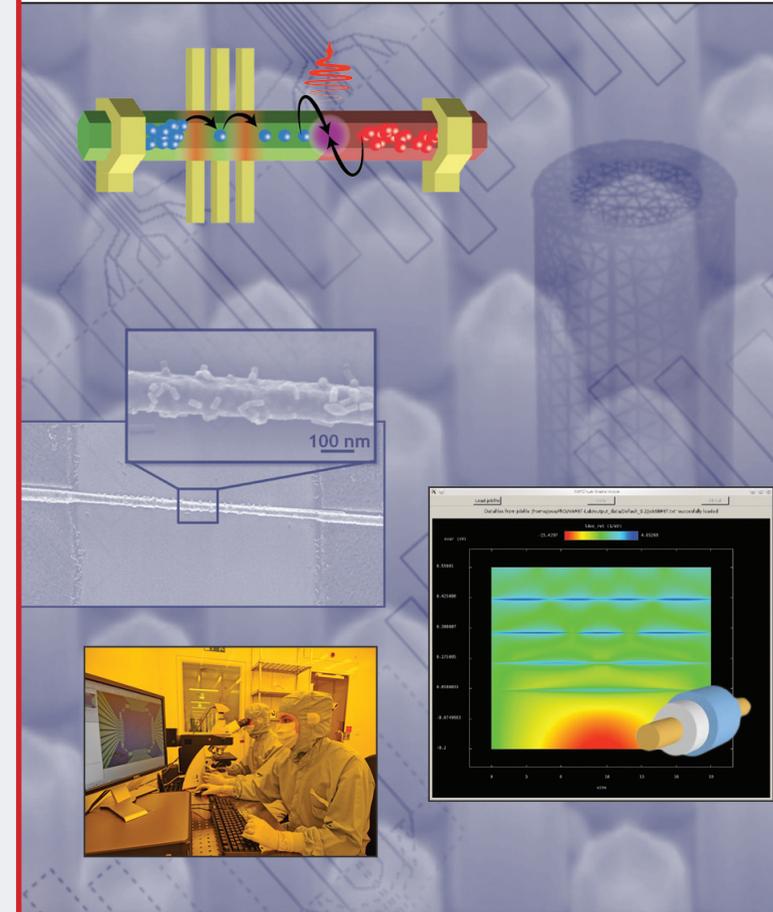
Fax: +49 551 39-4560

Email: [spliethoff@nanowiring.de](mailto:spliethoff@nanowiring.de)

## Registration and Further Information

The lecture programme, travelling information, online registration and abstract submission are available on the nanowiring project website:

<http://www.nanowiring.eu/fallschool>



## Advanced School on Semiconductor Nanowires

### Fall School

October 6 – 12, 2013 in Alghero,  
Sardegna, Italy

## Overview

Nanotechnology based on semiconductor nanowires promises a new generation of devices benefiting from large surface to volume ratios, small active volumes, quantum confinement effects and integration in complex architectures on the nanoscale. Potential applications range from sensors and opto-electronic devices to nanoelectronic circuits and energy harvesting modules.

The field of semiconductor nanowires offers rich fundamental physics and a high application potential for new technologies, but is presently still in its infancy. While fabricating self-organised nanowires is relatively easy, it is a formidable task to analyse, understand, control and manipulate those objects on the nanoscale. Advanced research on semiconductor nanowires requires a high level of expertise in modern solid-state physics and in nanotechnology.

This Advanced Fall School is intended for bachelor, master and PhD students, and for postdoctoral fellows in the field of physics, chemistry and material sciences. The purpose of the school is to draw the attention of prospective and newly graduated scientists to the latest developments in the field of semiconductor nanowires. A large variety of cutting-edge lectures and plenty of time for face-to-face discussions with leading experts and young researchers offer a unique possibility for scientific and professional development.

## Programme

Highly recognized international experts will give a comprehensive overview on fundamentals and recent progress in the exciting field of semiconductor nanowires.

### Topics of the Lectures include:

- Tutorial on electronic and optical properties of semiconductors (R. Ulbrich)
- MBE growth of GaN based nanowires (B. Daudin)
- Specificity of vibrational properties of small-dimension objects (A. Cros)
- Analysis and modelling of nanostructures (F. Glas)
- Introduction to density functional theory and its application to surface structures (L. Lymparakis)
- Transport in nanostructures (Th. Schäpers)
- Utilization of nanowire structures for photovoltaic structures (K. Deppert)
- GaN nanorod technology for solid state lighting (Andreas Waag)
- Shaping the Light of the Future (M. Strassburg)
- Quantitative scanning force microscopy (J. Colchero)
- Project Management (J. Zenneck)

## General Information

### Venue

The School will be held in Alghero, Italy. The conference center is located on the seafront, just 10 minutes walking distance from the old downtown area:

Hotel Carlos V  
Lungomare Valencia, 24  
07041 Alghero, Italy

### Participation

The school is open to all Nanowiring fellows and external participants. A basic knowledge of semiconductor physics is expected in the lectures. Poster contributions are highly welcome.

### Registration Deadline

All participants are asked to register via internet ([www.nanowiring.eu/fallschool](http://www.nanowiring.eu/fallschool)) before September 15, 2013.

### Payment and Cancellation Policy

A reduced conference fee of € 400 is available for participants registering before August 15, 2013. The regular conference fee amounts to € 500. Coffee, warm lunches, a conference dinner and a social event are included.

All payments have to be made by bank transfer and are due 14 days after registration. Details will be provided on the registration website. Cancellation must be received before September 15, 2013. Otherwise a payment of € 100 is required.