

**Winter School on Biophotonics and Bioelectronics
Hirschegg (Austria) 18-23 February 2018
Program**

Sunday 18/2

16.30-

Arrival and welcome dinner

Monday, 19/2

9:00 – 12:30

Fabio Biscarini (40 min):

A primer on organic electronics and bioelectronics

Annalisa Bonfiglio (50 min):

OCMFET-based DNA sensors

Roberto Corradini (40 min):

Oligonucleotide analogs, PNA and modified PNAs as sensing probes

Patrik Aspermaier (15 min):

Graphene FETs and plasmonic optics for bio-sensing

Andrea Achilli (15 min):

Screen-printed textile electrodes based on organic conductive polymers for ECG acquisition

Vitalyi Parkula (15 min):

Multigated EGOFET biosensors

Isabella De Bellis (20 min):

Tunable elastomeric photonic crystals

19:30 – 21:00

Carlo Bortolotti (40 min):

A primer on proteins at surfaces and interfaces with implications in biosensors

Vanessa Jungbluth (15 min):

Integrin-Peptide Interaction

Jakob Andersson (30 min):

Structural and Electrical analysis of model membranes

Tuesday, 20/2

9:00 – 12:30

Maria Minunni (50 min):

Optical based sensing: an analytical approach

Jakub Dostalek (30 min):

Plasmonic optical affinity biosensors

Roberta D'Agata (30 min):

Critical role of oligonucleotides in stability of streptavidin-coated gold nanoparticles

Stefan Fossati (15 min):

Nanostructured Surface Architectures for Plasmon Enhanced Fluorescence

Eleonora Macchia (15 min):

Insight into the charge transport of p-type/n-type blend materials for EG-OFET applications

Simone Hageneder (15 min):

Enhancement strategies for a plasmonic biosensor with microarray format for detection of biomarkers

Ulrich Ramach (15 min):

Development of an opto-electronic sensing setup using a combined gFET/SPR approach

19:30 – 21:00

Simona Scarano (50 min):

Nanophotonics and nanocomposites: innovation, (bio)analytical applications and emerging frontiers

Andrea Rozzi (15 min):

PNA-based advanced genosensing systems

Wednesday 21/2

Free time and team-building activities

Thursday 22/2

9:00 – 12:30

Luisa Torsi (30 min):

The toolbox for transistor biosensors

Omar Azzaroni (40 min):

Biomimetic Integrated Nanosystems Based on Nanofluidic Diodes: Towards "Iontronic" Transduction of Chemical, Physical and Biological Signals

Giuseppe Spoto (40 min):

Biosensing in droplet-based microfluidic systems

Kyriaki Manoli (15 min):

Electrochemical characterization of (bio)functionalized gold surfaces using electrolyte gated transistors

Marcello Berto (15 min):

EGOFET Biosensors

Andrea Spanu (15 min):

An Organic Charge Modulated FET system for in vitro cellular applications

Esteban Piccinini (30 min):

Pushing the Boundaries of Interfacial Sensitivity in FET sensors: Polyelectrolyte Multilayers Strongly Increase the Debye Screening Length

19:30 – 21:00

Gaetano Scamarcio (15 min):

Tip-enhanced microscopies for the characterization of self-assembled monolayers

Nestor Quilis (15 min):

Hybrid nanostructures for plasmon-enhanced spectroscopy

Rosanna Picca (15 min):

Extended lifetime of organic field-effect transistor biosensors implementing ZnO nanoparticles

Gianluca Salerno (20 min):

Stable and water dispersible DHLA-EDADA grafted CdSe/ZnS quantum dots (QDs)

Friday, 23/2

9:00 – 12:30

Piero Cosseddu (50 min):

Reproducing the sense of touch by means of organic semiconductor base devices

Johannes Binting (30 min):

Towards Reliable Electronic Biosensors Using a Graphene-Based Liquid-Gated Field-Effect Transistor Platform for Label-Free Sensing

Michele Di Lauro (15 min):

Whole organic electronic devices for implants

Noemi Bellassai (15 min):

Complementary SPR and QCM techniques for the characterization of low fouling, mixed-charged zwitterionic polymer