

2nd BE-OPTICAL School

May 2-5, 2017 Toruń, Poland

High-resolution Optical Imaging, Tissue Optics and Data Analysis Program

Tuesday, May 2

08:30-09:00 Registration

09:00-09:15 Welcome & Opening

**Session 1. Optical technologies for high-resolution imaging,
metrology and sensing**

09:15-10:45 R. J. Zawadzki, The How and the Why of in vivo cellular resolution imaging in the retina: history and future directions (Keynote Lecture)

10:45-11:00 Coffee break

11:00-12:00 A. Giacomotti, Nano-textured materials for bio-sensing and microscopy

12:00-14:00 Lunch

Session 2. Tissue optics and biophotonics

14:00-15:30 J. Pujol, Spectroscopy and hyperspectral imaging for biomedical applications

15:30-15:45 Coffee break

15:45-17:15 M. Vilaseca, Laser therapy

17:30-19:30 Visit to the Torun Center for Astronomy in Piwnice (Night Sky Viewing; bus transfer provided)

19:30-22:30 Welcome reception



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Wednesday, May 3

09:00-09:15 Registration

Session 3. Statistics, data analysis and classification tools

09:15-10:45 U. Parlitz, Introduction to Machine Learning

10:45-11:00 Coffee break

11:00-12:00 C. Masoller, Introduction to nonlinear time series analysis tools

12:00-14:00 Lunch

Session 4. ESR presentations

14:00-15:30 S. Mojiri, Multi-plane 3D Super Resolution Optical Fluctuation Imaging (SOFI)

M. Gonzalez Pisfil, Super-resolution and time-resolved microscopy: a novel tool for dynamics measurements in live cells

V. Kappadan, Multi-modal fluorescence imaging of contracting intact hearts

R. A. Quiñonez Uribe, Imaging and Analysis Tools for Optogenetic Cardiac Electrophysiology

S. Alayew Bogale, Multiphoton laser scanning microscopy as applied to imaging cardiac myocardium

M. Hamkalo, Development of spatio-temporal coherence manipulation in removal of image distortions



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Wednesday, May 3 (cont'd)

Session 4. ESR presentations (cont'd)

15:30-15:45 Coffee break

15:45-17:15 T. Alterini, Hyperspectral imaging system for the dynamic recording of the ocular fundus

A. Rodriguez Aramendia, Ophthalmic long-range Swept-Source OCT imaging

A. Jiménez Villar, Comparison of SS-OCT systems for anterior segment imaging

D. Halpaap, Speckle Reduction in Double Pass Ocular Imaging

A. Nehuen Gortari, Improved microscopy performance through substrate nanostructuring

S. Qin, Introduction of Imaging Scanning Microscope

P. Amil, Feature detection in ocular image databases

17:15-19:00 Student Teamwork for Outreach Activity (making the promotional videos)

19:00-21:00 Conference Dinner (Sala Mieszczanska u Golebiewskich / Burghers' Chamber, ul. Wysoka 10, Torun)



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Thursday, May 4

09:00-09:15 Registration

09:15-12:30 BE-OPTICAL Supervisory Board Meeting

Session 5. Transferable skills

09:15-10:45 Ch. Mack, Getting Published: How to write a good science paper – Part I

10:45-11:00 Coffee break

11:00-12:30 Ch. Mack, Getting Published: How to write a good science paper – Part II

12:30-14:30 Lunch

Session 6. Statistics, data analysis and classification tools (cont'd)

14:30-16:00 C. Otero, Introduction to biostatistics and its applications in clinical studies - Invited

16:00-16:15 Coffee break

16:15-17:45 U. Parlitz, Nonlinear modelling and data assimilation



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Friday, May 5

09:00-09:15 Registration

Session 7. Transferable skills (cont'd)

09:15-10:25 L. Gonzalez, How to Prepare a Clinical Trial

10:25-11:00 Coffee break

11:00-12:10 C. Mas, Ethics in Clinical Studies

12:10-13:00 Closing Remarks



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