

## 1 Programme summary

### 4th May, morning: optical techniques in skin diagnostics

8h45-9h15

**Registration**

9h15-9h25

**Welcome and Opening**

9h25-10h00

**Is there information in the noise? OCT speckle reflects on clinically relevant tissue properties**, Mitra Almasian, *Dept. of Biomedical Eng. & Physics, Academic Medical Center, Univ. of Amsterdam, The Netherlands - Invited talk*

10h00-10h20

**The Use of Dermoscopy and Reflectance Confocal Microscopy in the analysis of various skin lesions**, Marija Buljan, *Department of Dermatology and Venereology, University Hospital Centre "Sestre milosrdnice", Zagreb, Croatia - Contribution talk*

10h20-10h45

**Optical Coherence Tomography for skin cancer detection**, Marilena Giglio, *Dipartimento Interateneo di Fisica, Università and Politecnico di Bari, Italy - Contribution talk*

10h45 - 11h05

**Coffee break**

11h05-11h25

**Investigating different skin and gastrointestinal tract (GIT) pathologies (in vivo and ex vivo) by Optical Imaging**, Aleksandra Zhelyazkova, *Bulgarian Academy of Sciences, Emil Djakov Institute of Electronics, Bulgaria - Contribution talk*

11h25-11h45

**In vivo skin cancer detection using diffuse reflectance spectroscopy**, Ilona Kuzmina, *Biophotonics Laboratory, Institute of Atomic Physics and Spectroscopy, University of Latvia, Latvia - Contribution talk*

11h45-12h20

**Application of circularly polarized light for optical biopsy and cancer diagnostics**, Igor Meglinski, *Opto-Electronics and Measurement Techniques Laboratory, University of Oulu, Finland - Invited talk*

### 4th May, afternoon: photoacoustics for skin

14h00-14h35

**Photoacoustic imaging of the skin: the interferometric viewpoint**, Amir Rosenthal, *Technion - Israel Institute of Technology Technion City, Israel - Invited talk*

14h35-14h55

**Optical feedback based sub-wavelength frequency and displacement detection: an application towards detecting Photo-acoustic wave in tissue**, Ajit Jha, *CD6-BarcelonaTech, Spain - Contribution talk*

15h00-17h00

**BM1205 Management Committee Meeting**

17h00-18h00

**Visits to local labs**

20h00

**Workshop participants and MC/WG networking dinner**

## **5th May, morning: technologies for optical imaging and sensing**

9h00-9h35

**Tissue characterization based on temperature depth profiling using pulsed photothermal radiometry**, Boris Majaron, *Jozef Stefan Institute, Slovenia - Invited talk*

9h35-10h10

**Time resolved single photon cameras for multibeam multi photon live-cell microscopy**, Robert Henderson, *The University of Edinburgh, Scotland - Invited talk*

10h10-10h45

**Optical fiber tools for single cell manipulation and diagnostics**, Pedro Jorge, *Center for Applied Photonics/INESC-TEC, Porto, Portugal - Invited talk*

10h45 - 11h20

**Coffee break**

11h20-11h40

**Linewidth measurements of a mid-infrared quantum cascade laser by self-mixing technique for sensing application**, Maria Carmela Cardilli, *Università degli Studi di Bari, Via Amendola, 173 70126, Bari, Italy - Contribution talk*

11h40-12h00

**Comparison of quantum transport simulators to produce predictive tools in laser design**, David Winge, Andrew Grier, *Department of Physics, Lund University, Sweden - Contribution talk*

12h00-12h20

**Analysis of Risken-Nummedal-Graham-Haken instabilities in quantum cascade lasers**, Nikola Vukovic, *School of Electrical Engineering, University of Belgrade, Serbia - Contribution talk*

## **5th May, afternoon: tumoral tissue diagnosis**

14h00-14h35

**THz absorption and reflection imaging of colon tissues embedded in paraffin**, Irmintas Kasalynas, *THz Photonics Laboratory, Center for Physical Sciences and Technology, Vilnius, Lithuania - Invited talk*

14h35-14h55

**Tera-Hz imaging and spectroscopy of carcinoma-affected gastrointestinal tissue**,  
Faustino Wahaiá, *BioCareers Group/INEB - Inst.Eng.Biomédica, Univ. do Porto, Portugal - Contribution talk*

14h55-15h30

**Excitation-Emission Matrix Fluorescence Detection and Synchronous Fluorescence Spectroscopy of Skin Tumours**, Ekaterina Borisova, *Institute of Electronics, Bulgarian Academy of Sciences, Bulgaria - Invited talk*

15h30-15h50

**Excitation-emission matrices (EEMs) measurements of malignant melanoma lesions**,  
Tsanislava Genova, *Institute of Electronics, Bulgarian Academy of Sciences - Contribution talk*

16h00

**BM1205 Working groups meeting**