

Advanced fibre laser and coherent source as tools for society, manufacturing and lifescience



The second working group meeting will be held at the University of Tel Aviv, Israel. Main Topics covered by the meeting are

WG1- Materials, Fibres, Components and Technology

- SG.1.1 Rare-earth Materials, undoped glasses, and characterization
- SG.1.2 Fibre development and fabrication technology
- SG.1.3 Gratings, filters and passive components
- SG.1.4 Methods for modelocking, tuning

WG2- New laser, amplifier devices and coherent light sources

- SG.2.1 Modelling and Design Tools
- SG.2.2 MIR coherent line sources and continuum sources
- SG.2.3 UV coherent line sources and continuum sources
- SG.2.4 Power scaling issues

WG3- Applications

- SG.3.1 Manufacturing
- SG.3.2 Healthcare and Biomedical Applications
- SG.3.3 Environment, Green Photonics, energy production, sensing and security

An Industrial session and a special session for Early Career Investigator and Women researchers are planned

Location: Tel Aviv University, Israel

Proceedings: 1 page pdf summary and presentations will be available after the meeting on the Action website aflaser.eu

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Program - DAY 1 March 1st 2017

- 815 bus pickup from Leonardo Beach Hotel to Meeting Venue.**
- 845 Registration**
- 900 Welcome addresses
Amiel Ishayaa, Ben Gurion University, Israel
Ady Arie, Head of the School of Electrical Engineering Tel Aviv University, Tel Aviv, Israel
Stefano Taccheo, Chair of MP1401 Action, Swansea University, UK
- 915 WG1 Materials, Fibres, Components and Technology** - Introduction by the Chair, Kay Schuster, IPHT, Jena, Germany
- 930 Romain Dauliat, XLIM Research Institute, France, "High power fiber laser combining an aperiodic fiber microstructuration and the novel synthesis approach Repusil"
- 945 Philippe Roy, XLIM Research Institute, France, "Implementation of PM/PZ propagation in all solid aperiodic rod type fibres"
- 1000 Joris Lousteau, ORC, UK "Tellurite glasses and fibres for the development of coherent Mid-IR supercontinuum source"
- 1015 Matthias Jäger, IPHT Jena, Germany, "Tapering of rod-type REPUSIL amplifiers for peak power scaling and beam quality improvement"
- 1030 Peter Miluski, Bialistock University, Poland "Luminescent polymeric optical fibers for compact light sources"
- 1045 Coffee Break**
- 1115 J.-B. Douchez, University of Nice, France, "Loss in rare earth doped optical fibers: a Photo-RadioDarkening Equilibrium Level as a function of the pump power and dose rate"
- 1130 Lidia Zur, FBK, Trento, Italy, "Silica-tin dioxide glass-ceramic photonic systems"
- 1145 Letitia Petit, Tampere University, Finland, "TBD"
- 1200 LUNCH**
- 1330 WG2 New laser, amplifier devices and coherent light sources** - Introduction by the Chair, Irina Sorokina, Trondheim University, Norway
- 1345 Elena Romanova, Saratov State University, Russian Federation, "Fabrication and characterization of chalcogenide fiber based optical microcavities"
- 1400 Filip Todorov, UFE Prague, Czech Republic, "Thulium-doped high-power fiber laser with a polarizing diffraction grating on the fiber facet"
- 1415 Tomas Nemecek "Chromatic Dispersion of Photonic Crystal Fibers for MIR Laser Applications: Measurement, Modelling and Uncertainties"
- 1430 Dr. Yoav Sintov, Soreq, Israel "An overview of the R&D activities in Soreq in the field of fiber lasers"
- 1445 Nikos Korakas, Forth, Greece, "Tuning the transmission properties of a silica glass, anti-resonant optical fiber utilizing 193 nm laser radiation", TBC
- 1500 Coffee Break**
- 1530 OPEN DISCUSSION**
- 1630 Bus pick up for Hotel**
- 1700 Bus leaves Hotel to Jerusalem Trip & dinner"**

Program - DAY 2 March 2nd 2017

- 815 bus pickup from Leonardo Beach Hotel to Meeting Venue.**
- 900 WG3&SIG1 -Application and Industrial Session**, Introduction by Chairs Gianluca Valentini, Politecnico di Milano, Italy and Matej Komanec, Prague University, Czech Republic
- 915 Jonathan Griffiths, University of Lincoln, UK " Suitability of Fibre Laser Sources for Applications Involving Laser-Induced Breakdown"
- 930 Ivan Petryshynets, University of Lincoln " The wear resistance improvement of hot work tool steel via laser surface hardening "
- 945 Bruno Sfe, Israel Center for Advanced Photonics, Tel Aviv, Israel, " The Israel Center for Advanced Photonics "
- 1000 Ran Marom, Elbit-systems Ltd. Israel" Fiber Lasers at Elop "
- 1015 Doron Barnes, Spectra-Physics Tel-Aviv, Israel, "TBD"
- 1030 Udi Ben Ami, Optisiv , Israel "TBD"
- 1045 Stefano Taccheo, Swansea University, UK " Fiber lasers for biomedical applications"
- 1100 Coffee Break**
- 1130 Early Career Researcher and Women Researcher Session** Introduction by Chairs Anna Lukoviak, Polish Academy of Sciences, Wroclaw, Poland and Silvia Soria, IFAC-CNR Florence, Italy
- 1145 Verica Pavlic, Institute of Dentistry, Banja Luka, Bosnia&Herzegovina, " Use of the lasers in dentistry"
- 1200 Antreas Theodorakis, Frederick University & Cyprus University of Technology, Cyprus, " Selective FBG mode excitation in MM POF using fs laser inscription method "
- 1215 Nerea Otero Ramundo, Laser Applications Centre - Microprocessing Technologies, Spain, " Surface functionalization of metals and polymers by ultrashort pulsed lasers"
- 1230 Mary Kostantaki, Foundation for Research and Technology- Hellas, Greece, "Optical fibre grating sensors targeting medical applications "
- 1245 Svetlana Korsakova, Saratov State University, Russian Federation, " Evanescent wave spectroscopy in the mid-IR with the use of multimode chalcogenide fibers and FTIR spectrometer"
- 1300 LUNCH**
- 1400 Jean-Charles Beugnot, FEMTO-ST Institute, France, " Chalcogenide microwires for nonlinear photonic devices "
- 1415 Ramona Galatus, Technical University of Cluj-Napoca, Romania, " plasmonic phenomena and fluorescent fiber"
- 1430 Dobrosława Kasprowicz, Poznan University of Technology, Poland, "Up-conversion luminescence of rare earth doped photonic materials "
- 1445 Conclusions**
- 1500 Coffee Break**
- 1530 MC Meeting (MC members and WG Chairs only)**
- 1730 END OF MC Meeting**