

This schedule shows where you will find papers and posters from University of Southampton and Sheffield researchers, featured at 2018 SPIE Photonics West conference (Moscone Centre, San Francisco):

*Authors from these institutions are shown in *italics*.

Saturday January 27, 2018

BIOS - Colloidal Nanoparticles for Biomedical Applications XIII (10507)

Session 3: Nano-Bio Complexes and Assemblies (Rm 2006 West Level 2):

14:10 Investigating the stability of DNA-coated gold nanoparticles, #10507-9. *Kyriazi, El-Sagheer, Lackie, Brown, Kanaras, Muskens*

Monday January 29, 2018

LASE - Fiber Lasers XV: Technology and Systems (10512)

Session 1: Mode Instabilities in High Power Fiber Lasers I (Rm 151 South Mezzanine):

09:10 Power scaling limits in high power fiber amplifiers due to transverse mode instability, thermal lensing, and fiber mechanical #10512-4. *Zervas*

OPTO - Welcome and Opening Remarks: Prof. Graham Reed (Rm 3009 West Level 3)

OPTO - Integrated Optics: Devices, Materials, and Technologies XXII (10535)

Session 1: Integrated Optical Sensors (Rm 314 South Level 3) (Chair: *Mashanovich*):

12:30 Integrated fiber device for harsh environ. refractometry at indices above silica for monitoring hydrocarbon fuels #10535-6. *Gray, Jantzen, et al.*

OPTO - Smart Photonic and Optoelectronic Integrated Circuits XX (10536)

Session 3: Metamaterials and Metasurfaces II (Rm 159 South Mezzanine):

16:10 Optical superoscillation tech. with metasurfaces: subdiffraction focusing & label-free imaging (Keynote Presentation), #10536-11. *Zheludev, Rogers*

BIOS - Colloidal Nanoparticles for Biomedical Applications XIII (10507)

Session 9: Molecular Detection with Nanoparticles (Rm 2006 West Level 2):

09:10 Interactions of DNA coated upconversion nanoparticles with 2D materials (Invited) #10507-29. *Guist, Lucio, Muskens, Kanaras*

Tuesday January 30, 2018

LASE - Laser-based Micro- and Nanoprocessing XII (10520)

Session 9: 3D Glass Modification (Rm 156 South Mezzanine):

08:30 Femtosecond laser inscribed 5D optical memories (Invited Paper) #10522-37. *Kazansky*

LASE - Vertical External Cavity Surface Emitting Lasers (VECSELs) VIII (10515)

Session 6: Single Frequency/Intracavity Conversion (Rm 312 South Level 3)

08:15 New developments in THz-time domain spectroscopy involving ML-VECSELs (Invited), #10515-21. *Apostolopoulos, Tropper et al.*

Session 7: Mode-locked II (Rm 312 South Level 3)

11:45 Tantalum pentoxide waveguides and microresonators for VECSEL based frequency combs, #10515-29. *Sverre, Apostolopoulos, Woods et al.*

LASE - Nonlinear Frequency Generation and Conversion: Materials and Devices XVII (10516)

Session 8: New Nonlinear Materials (Rm 160 South Mezzanine)

17:40 Zinc indiffused PPLN ridge waveguides, #10516-32. *Carpenter, Berry, Field, Gawith*

LASE - 18:00-20:00 Poster session (Moscone West Level 2 & 3):

#10516-46 Domain engineering in PPLN waveguides for tailored QPM spectral response. *Berry, Carpenter, Field, Smith, Gawith*

#10516-49 Design and manufacture of single mode PPLN diced waveguides for quantum applications. *Berry, Carpenter, Field, Gawith*

#10512-105 Experimental investigation of the onset of modulation instability as a precursor for the stimulated Brillouin scattering in Yb-doped fiber amplifiers. *Panbiharwala Jr., Ghosh, Nilsson, Venkitesh, Srinivasan*

OPTO - Photonic and Phononic Properties of Engineered Nanostructures VIII (10541)

Session 4: Phase Change Materials for Optoelectronics I (Rm 2004 West Level 2):

08:00 Optical switching in nanostructured phase-change materials (Invited Paper), #10541-14. *Gholipour, Piccinotti, et al.*

OPTO - Integrated Optics: Devices, Materials, and Technologies XXII (10535)

Session 6: Novel Waveguide Technologies (Rm 312 South Level 3):

13:20 Direct UV-written integrated waveguides using 213nm light, #10541-14. *Gow, Bannerman, Gates, Holmes, Smith*

13:40 Composite material hollow core fibers: functionalization with silicon and 2D materials, #10535-21. *Sazio, Lewis, Lucia, et al.*

OPTO - Advances in Photonics of Quantum Computing, Memory, and Communication XI (10547)

Session 6: Hyperentanglement of Photons and Communication III (Rm 3006 West Level 3)

17:00 Fiber coupled acousto-optic modulators for near-UV and bluewavelength applications, #10547-18. Swain, Christie, et al. including Gow

Wednesday January 31, 2018

LASE - Fiber Lasers XV: Technology and Systems (10512)

Session 9: Pulsed Fiber Lasers (Rm 151 South Mezzanine)

08:00 Pulsed fibre laser with spatial and temporal control (Invited Paper), #10512-40. Almeida, Gorman, Chan, Vukovic, Codemard, Zervas

LASE - Solid State Lasers XXVII: Technology and Devices (10511) (Conference Chair: Clarkson)

Session 9: Ultrafast Lasers (Rm 154 South Mezzanine)

08:20 InP/InGaP quantum-dot SESAM mode-locked Alexandrite laser, #10511-4. Ghanbari, Fedorova, Krysa, Rafailov, Major

Session 11: Novel Laser Concepts (Rm 154 South Mezzanine)

15:50 Thermally guided ytterbium-doped fiber-rod laser, #10511-54. Smith, Jefferson-Brain, Simakov, Hemming, Clarkson

LASE - Laser-based Micro- and Nanoprocessing XI (10520)

Session 6: Direct-write Processing, Ablation, and Surface Modification I (Rm 155 South Mezzanine)

14:00 Applications of ultrafast laser direct writing: from polarization control to data storage (Invited Paper), #10520-25. Donko, Gertus, Brambilla, Beresna

OPTO - Optical Interconnects XVIII (10538)

Session 8: Optical Interconnect Devices and Modulators (Rm 306 South Level 3)

08:40 All silicon approach to modulation and detection at $\lambda = 2$ microns (Invited Paper), #10538-35. Littlejohns, Nedeljkovic, et al.

OPTO - Integrated Optics: Devices, Materials, and Technologies XXII(10535)

Session 9: Mid-IR (Rm 314 South Level 3)

10:30 Group IV mid-infrared devices and circuits (Invited Paper), #10535-35. Mashanovich, Soler-Penadés, et al.

OPTO - Physics, Simulation, and Photonic Engineering of Photovoltaic Devices VII (10527)

Session 2: Low Dimension and High-Efficiency Concept (Rm 308 South Level 3)

10:30 Quantum engineering InAs/GaAs single-junction concentrator solar cells, #10512-40. Beattie, See, Duchamp, Farrer, Ritchie, Tomic, Zopp

OPTO - Silicon Photonics XIII (10537) (Conference Chair: Reed)

Session 9: Hybrid Silicon Optical Systems and Devices I (Rm 208 South Level 2)

13:40 Chalcogenide glass-on-2D-materials photonics (Invited Paper), #10537-31. Lin, Song, et al. including Huang and Hewak

OPTO - Complex Light and Optical Forces XII (10549)

Session 7: Waveguides (Rm 3014 West Level 3)

13:40 Generation of orbital angular momentum beams using all-fiber photonic lanterns (Invited), #10549-28. Amezcua-Correa, Leon-Saval, Eznavneh, Antonio-Lopez, Zacarias, Milione, Shi, Thomsen, Richardson, Jung

OPTO - Terahertz, RF, Millimeter, and Submillimeter-Wave Technology and Applications XI (10531)

Session 11: Terahertz Spectroscopy II (Rm 305 South Level 3)

16:20 Towards swept source spectroscopy using THz emission from 2nd-order nonlinear optical effects in GaAs/AlGaAs multi-quantum well excitons at room temperature, #10520-25. Majeed, Ivanov, Clarks, Childs, Kojima, Hogg

OPTO - 18:00-20:00 Poster session (Moscone West Level 2 & 3):

10537-59 Waveguide-integrated mid-infrared graphene photodetector. Qu, Nedeljkovic, et al.

#10526-71 Single is better than double: analysis of thermal poling configurations using 2D numerical modeling. De Lucia, Sazio

Thursday February 1, 2018

LASE - Fiber Lasers XV: Technology and Systems (10512)

Session 9: Mode Instabilities in High Power Fiber Lasers II (Rm 151 South Mezzanine)

15:30 Effects of perturbation relative phase on transverse mode instability gain, #10512-69. Zervas

OPTO - Smart Photonic and Optoelectronic Integrated Circuits XX (10536)

Session 16: Smart Fabrication and Photonic Integration (Rm 159 South Mezzanine)

13:55 Advancing silicon photonics by germanium ion implantation into silicon (Invited Paper), #10536-65. Reed

If you are going to Photonics West 2018 and would like to book a meeting with any of our researchers or Dr John Lincoln, Industrial Liaison Manager please get in touch: contactus@photonicshubuk.org