

# Find us at CLEO Europe 2017

Papers and posters featuring research from the Optoelectronics Research Centre and the Future Photonics Hub

\*ORC and Hub investigators are shown in *italics*.

## Sunday 25 June 2017

- **10:30** Room 13A: Thermally-guided fiber-rod laser, #CA-1.3. *Smith, Simakov, Hemming, Clarkson*
- **10:30** Room 14C: Ytterbium-Doped Mixed Sesquioxides Grown by Pulsed Laser Deposition, #CM-1.3. *Prentice, Grant-Jacob, Beecher, Shepherd, Eason, Mackenzie*
- **11:45** Room 1: Narrow-band wavelength-tunable thulium fiber ring laser, #CJ-1.6. *Billaud, Shardlow, Clarkson*
- **11:45** Room Rontgen: Data transmission through optical polarization domain walls, #CI-1.5. *Guasoni*
- **14:15** Room 13A: Efficient Astigmatic Mode-Converter Based on Spherical Mirrors, #CA-2.2. *Uren, Clarkson*
- **14:45** Room 4B: Chirality and Natural Optical Activity in Disordered Media, #EG-2.4. *Pinheiro, Fedotov, Papasimakis*
- **14:45** Room 4C: Laser writing with sub-nanosecond burst of femtosecond pulses exploiting strain accumulation, #CM-2.4. *Okhrimchuk, Fedotov, Glebov, Sigaev, Kazansky*
- **14:45** Room Newton 2: High gain in erbium-doped channel waveguides, #CE-2.4. *Vazquez-Cordova, Aravazhi, Grivas, Yong, Garcia Blanco, Herek, Pollnau*
- **17:15** Room 1: Rapid phase plate fabrication using a scanning CO<sub>2</sub> laser, #CJ-3.6. *Boyd, Daniel, Rees, Simakov, Hemming, Clarkson, Haub*
- **17:15** Room Newton 2: Phase Engineering of Tin Sulphide Grown by Atmospheric Pressure Chemical Vapour Deposition at Ambient Temperature, #CE-3.6. *AlZaidy*
- **18:15** Room Newton 2: Combinatorial Search for Plasmonic and Epsilon-Near-Zero Chalcogenide Alloys, #CE-4.1. *Piccinotti, Gholipour, Yao, MacDonald, Hayden, Zheludev*
- **19:00** Room Edison: Gigantic Wavevectors and Energy Backflow in the Focus of a Superoscillatory Lens, #JSII-2.4. *Yuan, Zheludev*

### 13:00 Posters (Hall Bo):

- Low-Loss Integrated Ring-Resonator Filters Realized by CMOS Fabrication Process, #CI-P.2. *Marchetti, Vitali, Lacava, Cristiani, Giuliani, Adelmini, Fournier, Minzioni*
- Direct 9.3 micron CO<sub>2</sub> Laser Consolidation of FHD Silica for Planar Devices, #CM-P.1. *Gow, Jantzen, Gates, Smith, Holmes*
- High-birefringence direct-UV-written silica waveguides for heralded single photon sources at telecom wavelengths, #CM-P.6. *Posner, Bannerman, Smith, Mennea, Gates, Smith*

### Short course (Room 22a): HPFL - Prof Andy Clarkson

- 08:30 - 10:00 High Power Fiber Lasers - Part 1
- 10:30 - 12:00 High Power Fiber Lasers - Part 2

Meet us at Laser World of Photonics  
Messe Munich, 26-29 June 2017 - Hall B2, Booth 128  
See our demonstrations, speak to our experts and enjoy a coffee

## Monday 26 June 2017

- **08:30** Room 1: Plenary - From Optical Fibre to Amplifiers and High Power Lasers, #PL-1. *Prof Sir David Payne*
- **11:15** Room 4B: Plasmonics of Topological Insulators at Optical Frequencies, #JSIV-1.1. *Yin, Krishnamoorthy, Adamo, Dubrovkin, So, Chong, Zheludev, Soci*
- **11:30** Room Rontgen: Dissipative Optical Switch for Coherent Fibre Networks with 100 THz Bandwidth, #CI-5.2. *Xomalis, Jung, Demirtzioglou, Nalla, Plum, MacDonald, Petropoulos, Richardson, Zheludev*
- **14:30** Room 1: Power Scalability in High Power Fibre Amplifiers, #CJ-6.1. *Zervas*
- **14:45** Room Newton 1: Fermi-Pasta-Ulam recurrences of incoherent waves, #EJ-2.2. *Guasoni, Garnier, Rumpf, Sugny, Xu, Fatome, Millot, Picozzi*
- **15:30** Room Newton 2: Liquid crystal alignment on ultrafast laser nanostructured ITO coated glass, #CE-6.4. *Solodar, Cerkauskaite, Drevinskas, Kazansky, Abdulhalim*
- **15:45** Room Newton 2: Laser annealed low temperature deposited polysilicon waveguides for nonlinear photonics, #CE-6.5. *Franz, Runge, Oo, Healy, Martinez-Jimenez, Khokhar, Tarazona, Chong, Mailis, Peacock*

### 13:30 Posters (Hall Bo):

- Spatially controlled doping of silver in chalcogenide glass by thermal, photo and electron beam effects, #CE-P.7. *Morgan, Craig, Ravagli, Weatherby, Aghajani, Hewak*
- Direct UV Written Integrated Planar Waveguides Fabricated with 213nm Light, #CE-P.25. *Gow, Holmes, Bannerman, Gates, Smith*
- Laser writing of polycrystalline Si ridge waveguides, #CE-P.26. *Jimenez, Franz, Runge, Ceschia, Healy, Oo, Antulio, Chong, Peacock, Mailis*
- Insertion Loss Characterisation for UV Written Bragg Gratings in Fiber and Planar Waveguides, #CE-P.27. *Bannerman, Posner, Holmes, Smith, Gates*
- Optimized Modulation Formats for Suppression of Stimulated Brillouin Scattering in Optical Fiber Amplifiers, #CJ-P.29. *Vasant, Nilsson*
- Anomalous spectral behaviour of weakly-fused optical fibre couplers with sub-micron diameters, #CK-P.14. *Ismaeel, Talataisong, Gouvie, Beresna, Brambilla*

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### Tuesday 27 June 2017

- **16:15 Room 13B:** Silicon fibre nano-spike for robust coupling to silica fibres, #CK9.2. *Ren, Runge, Campling, Jones, Hawkins, Ballto, Horak, Gibson, Peacock*
- **16:30 Room Einstein:** Nanopatterning-Enhanced Perovskite Luminophores, #JSV-3.3. *Adamo, Gholipour, Lew, Cortecchia, Krishnamoorthy, Bruno, So, Birowosuto, Zheludev, Soci*

#### 13:00 Posters (Hall Bo):

- Freezing nematicons via photo-polymerization, #CD-P.1. *Karimi, Alberucci, Buchnev, Priimagi, Kauranen, Assanto*

### Wednesday 28 June 2017

- **08:30 Room 4B:** Plasmonic properties of superconducting niobium in the optical part of the spectrum, #EH-2.2. *Liao, Krishnamoorthy, Savinov, Ou, Delfanazari, Huang, Adamo, Plum, MacDonald, Chong, Soci, Kusmartsev, Tsai, Zheludev*
- **09:00 Room Einstein:** Generation of extreme ultraviolet vector beams from infrared laser pulses, #CF-8.3. *Turpin, Roman, Picon, Drevinskas, Cerkauskaitė, Kazansky, Durfee, Sola, Hernandez-Garcia*
- **10:30 Room 13A:** Extreme Environment Refractometers designed in Integrated Optical Fibre, #CH-6.2. *Holmes, Jantzen, Lynch, Gow, Ferreiro, Smith*
- **11:30 Room 13A:** A nano-fiber coupler refractometer, #CH-6.4. *Talataisong, Ismaeel, Beresna, Brambilla*
- **14:30 Room 14B:** Random bit generation through polarization chaos in nonlinear optical fibers, #CD-10.3. *Morosi, Guasoni, Akrou, Fatome*
- **15:15 Room 1:** Solving the Puzzle of Non-Reciprocity in Ultrafast Laser Writing, #CM-5.3. *Patel, Svirko, Durfee, Drevinskas, Kazansky*
- **15:15 Room 13B:** Excitation and dynamic control of plasmons in Graphene by utilizing a 2-dimensional inverted pyramid array diffraction grating, #CK10.6. *Matthaiakakis, Mizuta, Charlton*
- **17:00 Room 4B:** Optical bistability in optomechanical metamaterial at sub-milliwatt power levels, #EH5.5. *Ou, Karvounis, MacDonald, Zheludev*

#### 13:00 Posters (Hall Bo):

- A Reconfigurable Modular System for On-chip Quantum Optics, #EB-P.22. *Mennea, Clements, Posner, Bannerman, Smith, Renema, Gates, Kolthammer, Walmsley, Smith*
- Specular Optical Activity of Nano-Structured Metal Surfaces, #EH-P.13. *Frank, Buchnev, Senning, Kaczmarek, Fedotov*

### Thursday 29 June 2017

- **08:30 Room 5:** Laser Engineering of three-dimensional (3D) Structures in Paper-Based Microfluidic Devices, #CM-CL-1.1. *Sones, He, Katis, Eason*
- **08:30 Room 21:** Ultra Confined Polaritons in Atomically Layered Dielectrics, #EI-1.3. *Dubrovkin, Qiang, Krishnamoorthy, Zheludev, Wang*
- **09:15 Room Einstein:** Generation of Electromagnetic Doughnuts, #CF-12.4. *Papasimakis, Raybould, Moitra, Fedotov, Youngs, Zheludev*
- **09:45 Room B:** Reconfigurable Metasurface with Switchable Chirality, #EH-6.5. *Kaisat, Zheludev, Chong*
- **09:45 Room Rontgen:** Frequency Doubling a Compact Stable External Cavity Diode Laser Using a Novel PPLN Waveguide, #CJ-10.5. *Lynch, Carpenter, Berry, Ferreiro, Holmes, Gawith, Smith*
- **10:45 Room 4B:** Coherent absorption of two-photon states in metamaterials, #EH-7.2. *Roger, Lyons, Oren, Savinov, Valente, Vezzoli, Segev, Zheludev, Faccio*
- **11:15 Room 1:** Holmium doped fibre optimised for resonant cladding pumping, #CJ-11.4. *Shardlow, Simakov, Billaud, Daniel, Barua, Sahu, Hemming, Clarkson*
- **11:30 Room 1:** Mitigation of spectral broadening in high peak power holmium-doped fibre sources, #CJ-11.5. *Simakov, Hemming et al.*
- **11:30 Newton 2:** Multimaterial Mid-Infrared Transmitting Fibre Bundle for thermal Imaging, #CE-9.3. *Lousteau, White, Ventura, Masoudi, Poletti*
- **16:45 Room 5:** Geometric Phase Circular Gratings Fabricated by Ultrafast Laser Nanostructuring for Symmetric Simultaneous Spatio-Temporal Focusing, #CM-9.4. *Holmes, Jantzen, Cerkauskaitė, Durfee, Kazansky*
- **17:00 Room 1:** Self-mode-locked Bismuth-doped Fiber Laser Operating at 134nm, #CJ-13.5. *Thipparapau, Guo, Umnikov, Barua, Taranta, Alam, Sahu*
- **17:00 Room Newton 2:** Enhanced Temperature Sensitivity of thermally Regenerated Direct Ultraviolet Written Gratings in Germanium Doped Core Fiber, #CE-11.4. *Jantzen, Bannerman, Boyd, Smith, Holmes*

#### 13:00 Posters (Hall Bo):

- MoS<sub>2</sub> Coated Side Polished Fibers for Nonlinear Optics, #EI-P.5. *Zhang, Healy, Runge, Huang, Hewak, Peacock*



Meet us in the exhibition: Hall B2, Booth 128 in the UK Pavilion