

Opto Konferenz

3. Februar 2020 | 16:45-17:00 Uhr, Raum: 76

Multisensor and closed-loop control of component and assembly processes for zero-defect manufacturing of photonics

Erik Beckert

Session 3: Integration, Manufacturing and Photonic Circuits

4. Februar 2020 | 14:20-14:40 Uhr, Raum: 211

Evaluation of volume Bragg gratings as a wavelength division multiplexer in entanglement-based free-space quantum key distribution

Riza Fazili

Session 3: Quantum Communication and Entanglement II

5. Februar 2020 | 11:20-11:40 Uhr, Raum: 54

Laser-based soldering of a high-resolution optical filter instrument for space applications

Erik Beckert, Marcel Hornaff & Ramona Eberhardt

Session 4: Applications of Photonics Instruments

5. Februar 2020 | 14:40-15:00 Uhr, Raum: 210

Power scaling of Ce co-doped, highly doped Yb fiber lasers

Johannes Nold, Thomas Schreiber, Victor Distler, Nicoletta Haarlammert & Stefan Kuhn

Session 3: Laser Cooling of Rare-Earths: Bulk Systems

5. Februar 2020 | 16:50-17:20 Uhr, Raum: 210

Observation of anti-Stokes fluorescence cooling of ytterbiumdoped silica glass

Stefan Kuhn, Thomas Schreiber, Ramona Eberhardt, Johannes Nold & Nicoletta Haarlammert

Session 4: Laser Cooling of Rare-Earths: Optical Fibers

LASE Konferenz

1. Februar 2020 | 14:10-14:30 Uhr, Raum: 104

Processing bulk silicon with femtosecond laser pulses at 2- μ m wavelength

Gabor Matthäus

Session 3: Ultrafast Laser-Matter Interaction

3. Februar 2020 | 9:30-9:50 Uhr, Raum: 205

High power narrow-linewidth Raman amplifier and its limitation

Maximilian Strecker, Thomas Schreiber, Ramona Eberhardt & Vicotr Distler

Session 1: kW-Class Fiber lasers and Amplifiers I

4. Februar 2020 | 9:00-9:20 Uhr, Raum: 205

Watt-class optical parametric amplification driven by a thulium-doped fiber laser in the molecular fingerprint region

Christian Gaida & Martin Gebhardt (IAP)

Session 4: Thulium Doped Fiber Lasers and Amplifiers I

4. Februar 2020 | 09:40-10:00 Uhr, Raum: 205

108-W average power ultrashort pulses with GW-level peak power from a Tm-doped fiber CPA system

Christian Gaida & Martin Gebhardt (IAP)

Session 4: Thulium Doped Fiber Lasers and Amplifiers I

4. Februar 2020 | 15:30-16:00 Uhr

Soft x-ray high order harmonic generation driven by high repetition rate ultrafast thulium-doped fiber lasers

Christian Gaida & Martin Gebhardt (IAP)

Session 7: Thulium Doped Fiber Lasers and Amplifiers II

4. Februar 2020 | 17:10-17:30 Uhr, Raum: 206

Nonlinearly chirped fiber Bragg gratings by selective refractive index tuning using femtosecond laser pulses

Stefan Nolte

Session 6: High Power/Energy Laser Components I: Bragg Gratings

5. Februar 2020 | 9:00-9:20 Uhr, Raum: 206

Compact and highly efficient transmission gratings for the mitigation of nonlinear effects in fiber laser applications

Stefan Nolte

Session 7: High Power/Energy Laser Components II

5. Februar 2020 | 11:30-11:50 Uhr, Raum: 205

Manipulating the heat load distribution by laser gain competition in TMI-limited fiber amplifiers

Ramona Eberhardt, Victo Distler & Thomas Schreiber

Session 9: Mode Instability/Stimulated Thermal Rayleigh Scattering

5. Februar 2020 | 11:50-12:10 Uhr, Raum: 207

Laser assisted powder bed fusion of hypereutectic Al-Si using ultra-short laser pulses at different pulse durations

Gabor Matthäus & Stefan Nolte

Session 6: Powder-Bed SLM Metal Printing II

5. Februar 2020 | 16:40-17:00 Uhr, Raum: 207

Laser powder bed fusion of glass: a comparative study between CO₂ lasers and ultrashort laser pulses

Gabor Matthäus & Stefan Nolte

Session 6: Powder-Bed SLM Metal Printing II

6. Februar 2020 | 8:20-8:40 Uhr, Raum 153

Nanograting based birefringent retardation elements in integrated photonic circuits

Stefan Nolte

Session 10: Beam Shaping and Propagation for Laser Micro/Nano Processing

6. Februar 2020 | 17:10-17:30 Uhr, Raum: 205

Analysis of fabrication techniques and material systems for kW fibers limited by TMI

Thomas Schreiber, Johannes Nold, Victor Distler, Ramona Eberhardt, Maximilian Strecker & Nicole Haarlammert

Session 15: kW-Class Fiber Lasers and Amplifiers II

BIOS Konferenz

5. Februar 2020 | 8:40-9:00 Uhr, Raum: 159

Ultrathin multi-aperture microscope

Erik Beckert

Session 9: Spectral Imaging I

SPIE AR, VR, MR Co-located Conference

2. Februar 2020 | 11:00-11:20 Uhr, Raum: 2007

Design and fabrication of a lightweight AR headset demonstrator using a buried Fresnel mirror combiner

Erik Beckert

Session 2A: Novel AR Optical Architectures