We1B-1 **08:30-08:45**

Femtosecond All-Polarization-Maintaining Yb Doped Fiber Laser for Stable Supercontinuum Generation

Kaiyan Huang[1], Hong Jin[1], Siwei Peng[1], H. Y. Fu[2], Qian Li[1]
[1]Peking University, [2]Tsinghua University

An all-polarization-maintaining Yb-doped linear-cavity seed laser, amplified by a PM-MOPA, generates a stable supercontinuum with a -30-dB spectral coverage of 894-1232 nm, 46 MHz repetition rate, and excellent long-term power stability.

We1B-2 **08:45-09:00**

Near-Zero Dispersion Soliton from an All-PM Linear-Cavity Tm-Doped Fiber Laser with Interferometric Mode-Locking

Yixuan Liu[1], Siwei Peng[1], H. Y. Fu[2], Qian Li[1]
[1]Peking University, [2]Tsinghua University

We demonstrate an all-polarization-maintaining linear- cavity interferometric-mode-locked Tm-doped fiber laser with near-zero dispersion at 1943.45 nm. A pulse train with 26.85 nm spectral width, 222.3 fs duration, and 32.2 MHz repetition rate is generated.

We1B-3 **09:00-09:15**

Passive Harmonic Mode-Locking of a Diode-Pumped Fiber-Optic Cesium Vapor Laser

Sunghoon Jeong[1], Seokjin Kim[2], Kyunghwan Oh[1,3], Seongjin Hong[1]
[1]Yonsei University, [2]Korea Institute of Science and Technology, [3]Nazarbayev University School of Sciences and Humanities

We demonstrate a passive harmonic mode-locked diode- pumped cesium (Cs) vapor laser based on an optical fiber ring cavity. Pulses with a repetition rate of 547.6 MHz and a duration of 657.6 ps are obtained.

We1B-4 **09:15-09:30**

Study of Failure Modes Caused by High-Power Leakage in Hollow-Core Fibers

Takeshi Takagi[1], Keita Takahata[1], Kazunori Mukasa[1], Balint Varady[2], Zoltan Varallyay[2]
[1]Lightera Japan Co., Ltd., [2]Furukawa Electric Institute of Technology Ltd.

We experimentally demonstrate failure modes of hollowcore fibers (HCFs), which is not the fiber fuse, during highpower transmissions and confirmed bending potentially cause the failure. These results show good applicability of HCFs for high-power applications.

We1B-5 **Invited** **09:30-10:00**

Multimode Fiber Amplifiers with High Quality Focused Output based on Wavefront Shaping the Input Seed

Linh V. Nguyen[1], Michael R. Oermann[2], David G. Lancaster[1], Dmitrii Y. Stepanov[2], Shahraam Afshar V.[1], Heike Ebendorff-Heidepriem[1], David J. Ottaway[1], Stephen C. Warren-Smith[1]
[1]Adelaide University, [2]Defence Science and Technology Group

Wavefront shaping the input seed to a multimode fiber amplifier can deliver diffraction-limited beams, higher nonlinear thresholds, and scalable power from a single fiber device.