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Contents

vii	<i>Authors</i>
xi	<i>Conference Committee</i>

SESSION 1 TERMINAL AND SYSTEM DESIGNS AND COMPONENTS I

10524 02	Free space optics for tactical environments [10524-2]
10524 03	Reconfigurable free space optical data center network using gimbal-less MEMS retroreflective acquisition and tracking [10524-3]
10524 05	All-optical retro-modulation for terabit-per-second free-space optical communication [10524-5]

SESSION 2 TERMINAL AND SYSTEM DESIGNS AND COMPONENTS II

10524 07	Design and qualification of a small customizable fast steering mirror (FSM) for FSOC stabilization and scanning applications [10524-7]
10524 08	FSO links using high sensitivity gigabit combinational sensors and an adaptive high-throughput error-correction protocol [10524-8]
10524 09	The effect of photon counting detector blocking on centroiding for deep space optical communications [10524-9]
10524 0A	Optimizing deep-space optical communication under power constraints [10524-10]
10524 0B	On achieving high performance optical communications from very deep space [10524-11]

SESSION 3 SPACE AND AIR SYSTEMS AND DEMONSTRATIONS

10524 0C	Optical feeder link program and first adaptive optics test results [10524-12]
10524 0D	OPTEL-D: an optical communication system for the deep space [10524-13]
10524 0E	Testing of a compact 10-Gbps Lasercomm system at Trident Warrior 2017 [10524-14]
10524 0F	Design status of the development for a GEO-to-ground optical feeder link, HICALI (Invited Paper) [10524-15]
10524 0G	Demonstration of a bidirectional coherent air-to-ground optical link (Invited Paper) [10524-16]

10524 OH **Experimental comparison of 3-mode and single-mode coupling over a 1.6-km free-space link** [10524-17]

SESSION 4 LINK ANALYSIS AND OPTIMIZATION

10524 OI **Performance improvement in LEO-to-ground free space optical communication systems with adaptive distributed frame repetition** [10524-18]

10524 OJ **Performance limits and simplified analysis of photon-counted noisy free-space optical links** [10524-19]

10524 OK **Estimation of terrestrial FSO availability** [10524-20]

10524 OL **Data volume analysis of a 100+ Gb/s LEO-to-ground optical link with ARQ** [10524-21]

SESSION 5 FREE-SPACE QUANTUM

10524 ON **A BB84 free space quantum key distribution link implemented with modulating retro-reflectors** [10524-23]

SESSION 6 SPACE PROGRAMS I

10524 OP **Latest changes to NASA's laser communications relay demonstration project (Invited Paper)** [10524-25]

10524 OQ **European deep-space optical communication program (Invited Paper)** [10524-26]

10524 OR **The OSIRIS program at DLR (Invited Paper)** [10524-27]

SESSION 7 SPACE PROGRAMS II

10524 OS **Laser communications for human space exploration in cislunar space: ILLUMA-T and O2O (Invited Paper)** [10524-28]

10524 OT **The European data relay system and Alphasat to T-AOGS space to ground links, status, and achievements in 2017 (Invited Paper)** [10524-29]

10524 OU **Deep space optical communications (Invited Paper)** [10524-30]

10524 OV **TeraByte InfraRed Delivery (TBIRD): a demonstration of large-volume direct-to-Earth data transfer from low-Earth orbit** [10524-31]

SESSION 8 TRANSMITTER ARCHITECTURES AND COMPONENTS

- 10524 0W **Monolithic InP master oscillator power amplifier for free space optical transmissions at 1.5 μm** [10524-32]
- 10524 0X **Exploration of double clad fibers for increased stability of bidirectional free space optical links** [10524-33]
- 10524 0Y **RZ-DPSK photonic integrated transmitter for space optical communications** [10524-34]
- 10524 0Z **Space qualification of multi-channel optical fiber amplifier for low Earth orbit satellite-to-ground direct downlinks** [10524-35]
- 10524 10 **Radiation influence on Er/Yb doped fiber amplifiers performances: high power and WDM architectures** [10524-36]

SESSION 9 RECEIVER ARCHITECTURES AND COMPONENTS

- 10524 11 **HgCdTe APDs for free space optical communications** [10524-38]
- 10524 12 **Mode diversity coherent receiver with few-mode fiber-coupling for high-speed free-space optical communication under atmospheric turbulence** [10524-39]
- 10524 13 **Examining the ability of an FSO receiver to simultaneously communicate with multiple transmitters** [10524-40]
- 10524 14 **Adaptive optics on small astronomical telescope with multi-actuator adaptive lens** [10524-41]
- 10524 15 **Bit error rate performance on passive alignment in free space optical links using large core fibers** [10524-42]
- 10524 16 **Ultra-narrow bandpass optical interference filters for deep space optical communication** [10524-43]

POSTER SESSION

- 10524 17 **An inverse-kinematic approach to dual-stage servo control for an optical pointing system** [10524-44]
- 10524 18 **Giant pulse phenomena in a high gain erbium doped fiber amplifier** [10524-46]
- 10524 19 **Performance and characterization of a modular superconducting nanowire single photon detector system for space-to-Earth optical communications links** [10524-49]
- 10524 1A **Low-cost optical communications ground terminal architecture for inter-planetary and high data rate communications links** [10524-50]
- 10524 1B **Development of an optical slice for an RF and optical software defined radio** [10524-51]

- 10524 1C **High-peak power fiber amplifier for deep-space laser communications** [10524-56]
- 10524 1D **Independent component analysis for processing optical signals in support of multi-user communication** [10524-57]
- 10524 1E **Stress test verification of optical fiber wrap design for compact free space optical communications gimbals** [10524-58]
- 10524 1F **Test results of error-free bidirectional 10 Gbps link for air-to-ground optical communications** [10524-61]

Free-space optical communications. Articles Cited by Co-authors. Title. Sort. Sort by citations Sort by year Sort by title. Cited by. Cited by. R Saathof, R den Breeje, W Klop, S Kuiper, N Doelman, F Pettazzi, Free-Space Laser Communication and Atmospheric Propagation XXX 10524, 105240C, 2018. 5. 2018. The system can't perform the operation now. Try again later. Articles 1â€²20. Show more. Free-space optical communications links have the perpetual challenge of coupling light from free-space to a detector or fiber for subsequent detection. It is especially challenging to couple light from free-space into single-mode fiber (SMF) in the presence of atmospheric tilt due to its small acceptance angle; however, SMF coupling is desirable because of the availability of extremely sensitive digital coherent receivers developed by the fiber-telecom industry. Proc. SPIE 10524, Free-Space Laser Communication and Atmospheric Propagation XXX, 105240I (15 February 2018); doi: 10.1117/12.2288203. Read Abstract +. laser communication free space - Free download as Word Doc (.doc), PDF File (.pdf), Text File (.txt) or read online for free. seminar report. atmospheric penetration, the ability to use smaller optics than with longer wavelength technology, and the ability to use sensitive detectors based on silicon avalanche photodiode technology. Free Space Laser Communication Seminar 2014. . DISADVANTAGES. Free space laser communications systems provide only interconnection between points that have direct line-of-sight !L61#. They can transmit through glass, however, for each glass surface the light intensity is reduced, due to a mixture of absorption and refraction, thus reducing the operational distance of a system.