IEEE ICSOS 2011 Program

11-May

Time	Title	Author	Affiliation	Session
7:45-9:00	**Registration**			
9:00-9:15	*Welcome and Introduction to Conference*			
9:15-9:45	*Free Space Optical Network*	Chan	Lincoln	Common I
9:45-10:15	*Research and development of free-space laser communications technologies in NICT*	Toyoshima	NICT	Common I
10:15-10:45	*Deep Space Science Downlinks via Optical Communication*	Daddato	ESA	Common I
10:45-11:00	**BREAK**			
	A			
11:00-11:20	*Beaconless acquisition for ISL and SGL, summary of 3 years operation in space and on*	Sterr	Germany	Flight Demos
11:20-11:40	*5.625 Gbps Bidirectional Laser Communications and Ranging Meas. Between the NFIRE Satellite and an Ground Station*	Fields	Aersopace Corporation	Flight Demos
11:40-12:00	*The Lunar Laser Communications Demonstration*	Robinson	Lincoln	Planned Flight Demos
12:00-1:30	**LUNCH**			
1:30-1:50	*Downlink Synchronization for the Lunar Laser Communications Demonstration*	Willis	Lincoln	Planned Flight Demos
1:50-2:10	*Research and Development of 40Gbps optical free space communication from*	Koishi	NEC	Planned Flight Demos
2:10-2:30	*Deep Space Optical Communications Terminals*	Hemmati	JPL	Planned Flight Demos
2:30-2:50	*SOTA Small Optical Transponder for Micro-Satellite*	Koyama	NICT	Planned Flight Demos
2:50-3:10	*Optical Communications Payload for the Mexican NanoSatellite Project*	Mendieta	CICESE, Mexico	Planned Flight Demos
3:10-3:25	**BREAK**			
3:25-3:45	*Low-Impact Air-to-Ground Free-Space Optical Communication System Design and First Results*	Carrasco	University of Madrid	Planned Flight Demos
3:45-4:05	*A compact 10 Gb/s Lasercom System for LEO Orbit*	Kovalik	JPL	Planned Flight Demos
4:05-4:25	*Experiment plan for a small optical transponder onboard a 50 kg-class small satellite*	Takenaka	NICT	Planned Flight Demos
4:25-4:45	*Deep Space Acquisition and Tracking with Single Photon Detector Arrays*	Farr	JPL	ATP Systems
4:45-5:05	*The new Tracking Control System for Free-Space Optical Communications*	Yamashita	NEC	ATP Systems
5:05-5:25	*Development of Acquisition and Tracking Sensor for Next-Generation Optical Inter-Satellite Communication*	Miyatake	Mitsubishi	ATP Systems
	B			
11:00-11:20	*Preliminary assessment of the atmospheric optical channel at Goldstone*	Piazzolla	JPL	Atmospherics
11:20-11:40	*Recent Developments on Free Space Optical Links and Wavelength Analysis*	Plank	Technical University of	Atmospherics
11:40-12:00	*Characterization of Maritime RF/FSO Channel*	Gregory	University of	Atmospherics
12:00-1:30	**LUNCH**			
1:30-1:50	*Experimental Analysis of the Time Dynamics of Coherent Comm Through Turbulence: Markovianity & Channel Prediction*	Puryear	MIT	Atmospherics
1:50-2:10	*Optical fading analysis considering spectrum of optical scintillation in terrestrial free-space optical channel*	Kim	Osaka University	Atmospherics
2:10-2:30	*Studies on operation characteristics of triaxial telescope for satellite-ground laser communications*	Takayama	NICT	Ground Stations
2:30-2:50	*Performance Analysis of Voice Transfer Using Multi-Transceiver Optical Communication Structures*	Sevincer	University of Nevada	Ground Stations
2:50-3:10	*Reduced Complexity Diversity Receivers for Free-Space Optical Communication Through the Atmosphere*	Mohamed	McMaster University	Ground Stations
3:10-3:25	**BREAK**			
3:25-3:45	*Design of a Multimode Photon-Counting Optical Receiver for the NASA Lunar Lasercom Demonstration*	Grein	Lincoln Laboratory	Ground Stations
3:45-4:05	*Deep-space Optical Terminals: Ground Laser Receiver*	Birnbaum	JPL	Ground Stations
4:05-4:25	*Development of practical superconducting nanowire single photon detector system with high detection efficiency*	Miki	NICT	Ground Stations
4:25-4:45	*Spanish Optical Link (SOL) Analysis Software Simulation Tool*	Munuera	Ingeniería y Servicios Aero.	Ground Stations
4:45-5:05	*Dynamic Modeling Methodology and Dynamic Line Of Sight Test*	O'Keefe	Boeing	Studies & Analysis
5:05-5:25	*Performance Evaluation of IEEE 802.15.4 Signals on RoFSO Systems through Atmospheric Turbulence*	Salim	Waseda University	Studies & Analysis

6:00-7:00	*Cylindrical Waveguide Based MEMS Structure for Tilt Sensing*	Brishbhan	IIT Delhi	Poster
	A Hybrid RF / Optical Communication Terminal with Spherical Primary Optics for Optical Reception	Charles	JPL	Poster
	Satellite Laser Communication with Brandon Orbits	Christopher		Poster
	GaN-based technology for MQW modulating retro-reflectors operating in the visible and ultraviolet spectral ranges	de Lucas	Ingeniería y Servicios Aero.	Poster
	A Free-Space Optical Communications System: An M-ary multi-pulse width modulation scheme with emphasis on optimizing transmit power	Kozachenko	San Diego State University	Poster
	Performance analysis of time diversity scheme through atmospheric turbulence by using beam tracking antenna	Liu	Waseda University	Poster
	Laboratory test results for adaptive optics using image-based wavefront sensing for remote sensing	Miyamura	University of Tokyo	Poster
	A configuration speed acceleration method for a sequential circuit using a negative logic implementation	Moriwaki	Shizuoka University	Poster
	2D tunable beam steering-lens device based on high birefringence liquid crystals	Oton	University of Madrid	Poster
	Remote full-axis deformation sensing using multi-zeros optical beam: Interference of two multi-zeros beam	Qi	University of Tokyo	Poster
	Optical Frequency Optimization of a High Intensity Laser Power Beaming System Utilizing VMJ Photovoltaic Cells	Raible	NASA Glenn	Poster
	Optical Wireless Power transmission at Long Wavelengths	Sahai	Duke University	Poster
	Initial Characterization of Optical Communications with Disruption-Tolerant Network Protocols	Schoolcraft	JPL	Poster
	Modeling and Simulation to Study the BER Performances of Free Space Optical Communication for Different Distances	Singh	NIT - Hamirpur	Poster
	Sun at the Night	Uthanraj	Anna University	Poster
	Polished-Panel Optical Receiver Concept Demonstration	Vilnrotter	JPL	Poster
	A 16-laser array for an optically reconfigurable gate array	Watanabe	Shizuoka University	Poster
	An Interleaver-based Atmospheric Optical Multiple Access Scheme: Capacity and BER Performance	Zhou	Fudan University	Poster
6:30-7:30	***WELCOME RECEPTION***			

12-May

Time	Title	Author	Affiliation	Session
	A			
9:00-9:20	*Hybrid entanglement photon pair source for fiber-space flexible QKD network*	Fujiwara	NICT	Quantum Communications
9:20-9:40	*Near-ground Long-distance Quantum Communication*	Tavala	Royal Institute of Tech. Sweden	Quantum Communications
9:40-10:00	*Progress in Approaching the Ultimate Limits of Photon-Efficient and Bandwidth-Efficient Optical Communication*	Erkmen	JPL	Quantum Communications
10:00-10:20	*Homodyne BPSK receiver with Doppler shift compensation for inter satellite optical communication*	Ando	Mitsubishi	Coherent Technologies
10:20-10:35	***BREAK***			
10:35-10:55	*Coherent detection of low light level pulses*	Heine	Tesat-Spacecom	Coherent Technologies
10:55-11:15	*Feasibility study of coherent LEO-Ground link using an optical injection phase lock loop technique*	Shoji	NICT	Coherent Technologies
11:15-11:35	*1 W narrow linewidth semiconductor-based laser module emitting near 1064 nm for coherent optical communication in space*	Spiessberger	Ferdinand-Braun-Institut	Coherent Technologies
11:35-11:55	*LDPC-coded OAM modulation and multiplexing for deep-space optical communications*	Djordjevic	University of Arizona	Modulation and Coding
11:55-1:30	***LUNCH***			
1:30-1:50	*Numerical evaluation of coherent signals for deep-space links*	Waseda	NICT	Modulation and Coding
1:50-2:10	*Performance bound for turbo-coded subcarrier PSK free-space optical communication systems over strong turbulence channels*	Pham	University of Aizu	Modulation and Coding
2:10-2:30	*Multi-rate low density generator matrix code for optical satellite communications*	Matsuo	Nagoya Institute of Technology	Modulation and Coding
2:30-2:50	*Blocking Losses on an Optical Communications Link*	Moision	JPL	Modulation and Coding
2:50-3:00	***BREAK***			
3:00-3:30	*R&D Status of the Next Generation Optical Communication Terminals in JAXA*	Yamakawa	JAXA	Common II
3:30-4:00	*Satellite quantum key distribution*	Hughes	LANL	Common II
4:00-4:30	*Light wave antenna: Is it a simple extension from optical telescopes?*	Takano	Nihon University	Common II
4:30-5:00	*Comparison between Computer Simulation of the Free Space Optical Channel using Phase-screens and the Experimentally Measured Scintillation Index*	Nener	University of Western	Common II
5:00-5:30	*Deep-Space Optical Communications*	Cesarone	JPL	Common II
	B			
9:00-9:20	*Comparison of Square and Radial Geometries for High Intensity Laser Power Beaming Receivers*	Raible	NASA Glenn	Studies & Analysis
9:20-9:40	*Exploration Of A Free-Space Optical Communications System For Sounding Rocket Sub-Payloads*	Gealy	Univ. of New Hampshire	Studies & Analysis
9:40-10:00	*A Study of An Optical Lunar Surface Communications Network with High Bandwidth Direct to Earth Link*	Wilson	JPL	Studies & Analysis
10:00-10:20	*Study of Digital Coherent Optical Receiver for Free-Space Laser Communication*	Sasaki	University of Electro-Comm	Studies & Analysis
10:20-10:35	***BREAK***			
10:35-10:55	*Wavelength Tracking Interferometer for DPSK Lasercom Links*	Rose	Aerospace Corporation	Studies & Analysis
10:55-11:15	*Optical System Architecture Design of Multiple Apertures Array Antenna for Satellite-to-Ground Optical Communication*	He	Changchun U. Science & Tech	Studies & Analysis
11:15-11:35	*A Novel RF Signal Beamforming Scheme over Optical Wireless Communications*	Liu	Waseda	Studies & Analysis
11:35-11:55	*Adaptive Channel Coding for Maritime FSO Channels with RF Feedback Link*	Gregory	University of	Studies & Analysis
11:55-1:30	***LUNCH***			
1:30-1:50	*Design and analysis of an IDMA cooperative relay free-space optical system*	Zhou	Fudan University	Studies & Analysis
1:50-2:10	*Developments of the light source for DECIGO and DPF*	Musha	University of Electro-Comm.	Optics in Space
2:10-2:30	*Micro-integrated ECDLs for precision spectroscopy in space*	Luvsandamdin	Ferdinand-Braun-Institut	Optics in Space
2:30-2:50	*Future Optical Planetary Access Links*	Biswas	JPL	Optics in Space
6:30-8:00	***BANQUET***			

13-May

8:00-12:00	***JPL Tour***