

February 5th 2009 (2nd Day)

From	Session / Title and Speaker
8:30	Registration open
Developments in laboratory	
Chair: R. Lange, <i>Tesat Spacecom, Germany</i>	
Co-chair: M. Toyoshima, <i>National Institute of Information and Communications Technology (NICT), Japan</i>	
8:50	ICSOS2009-10 Technology and application of laser communication for Earth observation micro-satellite “TAIKI” Author(s): Y. Aoyanagi, S. Satori, <i>Hokkaido Institute of technology, Japan</i>
9:10	ICSOS2009-11 Data-relay network using laser inter-satellite communications Author(s): I. Mase, K. Ikebe, <i>NEC Corporation, Japan</i> ; K. Shiratama, <i>NEC TOSHIBA Space Systems, Ltd., Japan</i>
9:30	ICSOS2009-12 Development of optical antenna for satellite-ground link Author(s): K. Kodeki, K. Fukushima, <i>Mitsubishi Electric Corporation, Japan</i> ; M. Toyoshima, Y. Takayama, <i>National Institute of Information and Communications Technology (NICT), Japan</i>
9:50	Coffee break
Experimental demonstration	
Chair: L. Summerer, <i>European Space Agency (ESA), Netherlands</i>	
Co-chair: T. Toda, <i>Institute of Space and Astronautical Science (ISAS) / Japan Aerospace Exploration Agency (JAXA), Japan</i>	
10:00	ICSOS2009-13 (Invited) Experimental demonstration of optical telemetry transmission from Mars to Earth Author(s): K. Kudielka, T. Dreischer, B. Thieme, M. Tuechler, <i>Oerlikon Space, Switzerland</i>
10:30	ICSOS2009-14 Experimental study of transmitting RF signals over free space optics system Author(s): A. Bekkali, P. Tien Dat, K. Kazaura, K. Wakamori, T. Suzuki, M. Matsumoto, <i>Waseda University, Japan</i> ; T. Higashino, K. Tsukamoto, S. Komaki, <i>Osaka University, Japan</i>
10:50	ICSOS2009-15 Demonstrative radio on free space optic transmission experiment and its optimal link design Author(s): H. Onodera, K. Kim, T. Higashino, K. Tsukamoto, S. Komaki, <i>Osaka University, Japan</i> ; K. Wakamori, T. Suzuki, K. Kazaura, M. Matsumoto, <i>Waseda University, Japan</i>
11:10	Coffee break

Quantum technology for space applications and science mission

Chair: J. Perdigues, *European Space Agency (ESA), Netherlands*

Co-chair: N. Hiromoto, *Shizuoka University, Japan*

11:20	ICSOS2009-16 (Invited) Space-QUEST: Experiments with quantum entanglement in space Author(s): R. Ursin, T. Jennewein, <i>Institute for Quantum Optics and Quantum Information (IQOQI), Austrian Academy of Sciences, Austria</i> ; A. Zeilinger, <i>University of Vienna, Austria</i>
11:50	ICSOS2009-17 Quantum receivers and quantum coding toward the quantum-limit performance in long-haul optical communications Author(s): M. Takeoka, K. Tsujino, M. Fujiwara, M. Sasaki, M. Toyoshima, <i>National Institute of Information and Communications Technology (NICT), Japan</i>
12:10	ICSOS2009-42 Japanese space gravitational wave antenna DECIGO Author(s): S. Kawamura, <i>National Astronomical Observatory, Japan</i>
12:30	Lunch
Novel optical devices	
	Chair: A. Seeds, <i>University College London, UK</i>
	Co-chair: Y. Shoji, <i>National Institute of Information and Communications Technology (NICT), Japan</i>
13:30	ICSOS2009-18 (Invited) Concepts for based on wireless energy transmission via laser Author(s): L. Summerer, O. Purcell, <i>European Space Agency (ESA), Netherlands</i>
14:00	ICSOS2009-19 Vehicle to vehicle multi-channel optical communication system by laser using corner cube prism with total reflection technique Author(s): T. Tsumura, <i>Tsumura Research Institute Co. Japan</i> ; Hisao Azuma, <i>FUDAI Inc., Japan</i> ,
14:20	ICSOS2009-20 Innovative concept of optical system design for satellites Author(s): A. Enokuchi, Y. Obuchi, Y. Kanai, N. Takeyama, <i>Genesia Corporation, Japan</i>
14:40	ICSOS2009-21 Configuration experiments for an optically reconfigurable gate array with a silver-halide holographic memory Author(s): M. Nakajima, M. Watanabe, <i>Shizuoka University, Japan</i>
15:00	ICSOS2009-22 Study on on-orbit self-compensation of satellite optics using spatial light modulator Author(s): N. Miyamura, <i>University of Tokyo, Japan</i>
15:20	Coffee break

Space lidar technology

Chair: L. Thomas, *Naval research laboratory, USA*

Co-chair: K. Mizutani, *National Institute of Information and Communications Technology (NICT), Japan*

15:30	ICSOS2009-23 (Invited) The first lunar global topography by the laser altimeter (LALT) on the KAGUYA (SELENE) main orbiter Author(s): H. Araki, S. Tazawa, H. Noda, Y. Ishihara, N. Kawano, S. Sasaki, <i>National Astronomical Observatory, Japan</i>	
16:00	ICSOS2009-24 On orbit operation of lidar for asteroid Explore HAYABUSA Author(s): T. Mizuno, <i>Institute of Space and Astronautical Science (ISAS) / Aerospace Exploration Agency (JAXA), Japan</i> ; K. Tsuno, E. Okumura, <i>NEC TOSHIBA Space Systems Ltd., Japan</i> ; M. Nakayama, <i>TOSHIBA Corporation, Japan</i>	
16:20	ICSOS2009-25 Spaceborne lidar for the JEM-EUSO mission Author(s): S. Wada, T. Ogawa, T. Ebisuzaki, <i>RIKEN, Japan</i> ; M. Sato, <i>Hokkaido University, Japan</i>	
16:40	Concluding remarks	N. Kadokami, <i>National Institute of Information and Communications Technology (NICT), Japan</i>
16:50	2nd day end	