Sunday 18 June – Adamas Conference Center (Milos)	
14:00 - 17:15	Registration at Milos Conference Center – Adamas Milos
18:00 – 21:00	*Icebreaker*
Monday 19 June – Adamas Conference Center (Milos)	
09:00 – 09:15	Welcome by Chairs, Local Organizer (G. Tzeremes, ESA)
09:15 – 09:30	Overview of Workshop Objectives and Chair Assignments (U. Singh, NASA)
09:30 – 10:30	*Strategy of Space Agencies (Chairs: U. Singh, NASA; G. Tzeremes, ESA)* **09:30 – 9:50** NASA - Clayton A. Turner, Director, Langley Research Center. **09:50 – 10:10** JAXA - Toshiyoshi Kimura, JAXA **10:10 – 10:30** ESA – Arnaud Heliere, Head, Optical Instruments, EOP, ESA
10:30 – 10:50	*Coffee Break*
10:50 – 12:00	*Strategy of Space Agencies (Chairs: U. Singh, NASA; G. Tzeremes, ESA)* **10:50 – 11:10** ESA vision for imaging & exploration Lidars, P. Ribes. ESA **11:10 – 11:30** GSC - Vision of Greek Space Center, I. Daglis, President of GSA **11:30 – 12:00** Panel with Space Leaders – Discussion/Questions
12:00 – 13:00	*Lunch break*
13:00 – 15:00	Session 1: *Clouds, Aerosols, Oceans & Winds (Chair: Ali H. Omar, NASA, D. Bernaerts, ESA)* **13:00 – 13:30** Integrating space-based, airborne, and surface-based lidar into Earth system science for studies of climate and global change, J. Kaye, NASA **13:30 – 13:45** ATLID instrument in Earth CARE Satellite AIT – Lessons learned for future lidar, C. Haas, AIRBUS **13:45 – 14:00** The NASA HSRL pathfinder mission concept, C. Hostetler, NASA **14:00 – 14:15** AEOLUS 2 Instrument architecture study and enabling pre-development activities, M. Porciani et al., ESA **14:15 – 14:30** Aeolus 2 LDO laser transmitter pre-development status and results, A. Cosentino, Leonardo

	14:30 – 14:45 ALTA EM design highlights and demonstrated measured performance of the representative BB models, C. Währer, AIRBUS **14:45 – 15:00** ALADIN UV laser transmitter in AEOLUS mission: Almost 5 years of operation and high power UV 7- billion shots emitted from space., V. de Sanctis, Leonardo
15:00 – 15:15	*Coffee break*
15:15 - 17:15	**Session 1:** ***Clouds, Aerosols, Oceans & Winds (Chair: J. Kaye NASA, Clayton Turner, NASA)- continued*** **15:15 – 15:45** What have we learned from CALIPSO, D. Winker et al., NASA **15:45 – 16:00** AEOLUS ALADIN performance status after almost 5 years of successful operation, O. Mickael, P. Bravetti et al., AIRBUS **16:00 – 16:15** AWP: NASA's Aerosol Wind Profiler (AWP) coherent doppler wind lidar, J. Marketon, NASA **16:15 – 16:30** Future space based coherent doppler wind lidar for global wind profile observation, I. Shoken et al., Tokyo Metropolitan University. **16:30 – 16:45** Engineering laser systems for space applications, N. Sawruk et. al., Fibertek **16:45 – 17:00** A SmallSat lidar concept for measurements of aerosol and cloud spatiotemporal variability, J. Yorks et al., NASA **17:00 – 17:15** Towards establishing a long-term cloud record from space-borne lidar observations, A. Feofilov et al, Un. of Sorbonne
Tuesday 20 June – Adamas Conference Center (Milos)	
08:30 – 09:15	**Session 1:** ***Clouds, Aerosols, Oceans & Winds (Chair: A. Heliere ESA, Clayton Turner, NASA)- continued*** **08:30 – 08:45** AEOLUS, the first space wind lidar, A. Elfving, ret. ESA **08:45 – 09:00** AEOLUS and its benefits to understand gravity waves in the tropical UTLS, M. Ratynski, LATMOS, CNRS. **09:00 – 09:15** Retrieval of aerosol and clouds optical properties with use of (ACDL): Status and progress, D. Guangyao et al., Ocean Univ. of China.
09:15 – 09:45	*Panel Discussion and summary of Session 1*

09:45 - 11:30	Session 2: *Topography, Cryosphere, Gravitational Waves, Biomass, Greenhouse, and Trace Gases (Chair: T. Kimura, JAXA, P. Ghuman, NASA)* **09:45 – 10:00** NASA's space lidars – 3D Observations and applications, Ali H. Omar, NASA **10:00 – 10:15** MERLIN planetary layer overview and presentation of highlights of the hardware status of payload subsystems, C. Kühl et al., AIRBUS **10:15 – 10:30** MERLIN laser platform – Inherent stability and reliability aspects with prospects for future lidar applications, B. Gronloh, ILT **10:30 – 10:45** An innovative concept of measuring snow depth and snow density from space-based lidar, Y. Hu, NASA **10:45 – 11:00** Optical frequency references for future lidar missions, Hanjo Schäfer et. al., Space TECH-i **11:00 – 11:15** Carbon Dioxide active remote sensing using pulsed 2-micron lidar, T. Refaat, NASA **11:15 – 11:30** Water Vapor DIAL: Why and what is missing to go space-borne, M. Wirth et al. DLR
11:30 – 11:45	*Coffee break*
11:45 – 13:00	Session 2: *Topography, Cryosphere, Gravitational Waves, Biomass, Greenhouse, and Trace Gases (Chair: C. Hostetler, NASA, M. Wirth, DLR.) - Continued* **11:45 – 12:00** MOLI space-based topographic lidar, S. Daisuke, JAXA **12:00 – 12:15** Spaceborne aerosol and carbon dioxide detection lidar (ACDL) status and progress, Liu Jiqiao et al., Chinese Academy of Science **12:15 – 12:30** An efficient 256- track beam steering lidar using wavelength tuning for lunar topography swath mapping, Y. Guangning, NASA **12:30 – 12:45** Laser tracking instrument for NGGM, Kai Voss, Kolja Nicklaus et. al, Space TECH-i **12:45 – 13:00** Novel micro-lidar powered spectrometer for GHG monitoring from Cubesat, E. Armandillo, Airmo

13:00 – 13:30	*Panel Discussion and Summary of Session 2*
13:30 – 14:30	*Lunch break*
14:30 – 16:10	Session 3: *Exploration Lidars: Entry/Decent/Landing, Precision Landing and Hazard Avoidance, Mars & Lunar Rover (Chair: P. Ribes, ESA; F. Amzajerdian, NASA)* **14:30 – 14:50** RVS3000 Product Family - Smart and versatile 3D lidar sensor for space application, M. Mueller et al., Jena Optronik **14:50 – 15:10** HERA-Lidar mission to Didymos asteroid system, H. Goldberg et al., ESA **15:10 -15:30** New space compact flash lidar, C. Pache et al., CSEM **15:30 – 15:50** Miniaturized flash lidar for landing applications, S. Johansen et al., KDA **15:50 – 16:10** Evolution in lidar technology for commercial lunar missions, M. Hernandez et al., MDA
16:10 – 16:25	*Coffee break*
16:25 – 17:45	Session 3: *Exploration Lidars: Entry/Decent/Landing, Precision Landing and Hazard Avoidance, Mars & Lunar Rover (Chair: T. Refaat, NASA; P. Ribes, ESA)* **16:25 – 16:45** Demonstration of lidar sensors for precision safe landing on planetary bodies, Farzin Amzajerdian, NASA **16:45 – 17:05** FWCW lidar for lunar descent payload, E. Margallo Balbas, Ommatidia **17:05 – 17:25** MiLi Project: towards next generation of miniaturized lidars for mars advanced atmospheric research, M.O. Alberto, INTA **17:25 – 17:45** Feasibility of miniature lidar for atmospheric sounding on Mars based on silicon photomultipliers and pulsed laser diodes, A. Ignacio, INTA
17:45 – 18:15	*Panel Discussion and summary of Session 3*
18:15 – ….	*Excursion to local sights!* *Gala Dinner*

Wednesday 21 June – Adamas Conference Center (Milos)	
08:50 – 09:30	Session 4: Emerging Integrated *Photonics Architectures for Space based Lidar Applications (Chair: K. Rupavatharam, MSU; M. Stephan, NASA)* **08:50 – 09:10** Rad-Hard-by-Design TDC chip for today's and future lidars, Hagen Marien et al., Magic **09:10 – 09:30** Prospects for photonic integrated circuit lidars in space applications, S. Iezekiel et al., University of Cyprus
09:30 – 09:45	*Coffee break*
09:45 – 10:25	Session 4: Emerging Integrated *Photonics Architectures for Space based Lidar Applications (Chair: K. Rupavatharam, MSU; M. Stephan, NASA)* **09:45 – 10:05** Coherent micro-optical systems, Nanoscribe **10:05 – 10:25** Photonic integration advancements in miniaturizing high reliability lidar system components, Sherman Jes, Freedom Photonics
10:25 – 10:55	*Panel Discussion and summary of Session 4*
10:55 – …	*Departure from Conference Center for Team Building event*
Thursday 22 June – Adamas Conference Center (Milos)	
08:30 – 10:30	Session 5: *Ground/Airborne Campaigns for Space Cal/Val (Chair: Jonas Von Bismarck, ESA;* D. Winker, NASA*)* **08:30 – 08:45** Fiber Lasers and Architectures for Atmospheric Lidars: From New Measurement Strategies to Campaigns Validation, A. Durécu et al., ONERA **08:45 – 09:00** Preparing for EarthCARE – active remote sensing measurement onboard the HALO aircraft, S. Grosse, DLR **09:00 – 09:15** Heterodyne and direct detection wind lidar developed at ONERA, M. David, ONERA **09:15 – 09:30** ATLID Cal/Val using ACTRIS datasets, V. Amiridis, et.al, NOA **09:30 – 09:45** EMORAL mobile Mie-Raman Lidar with fluorescence, polarisation and water vapor observational capabilities for Cal/Val missions, I. Stachlewska, Univ of Warsaw

	09:45 – 10:00 TROPOMI + GHGsat to identify methane hotspots/IMI inversion of methane with TROPOMI/AEOLUS, E. Landulfo, IPEN **10:00 – 10:15** Multiply, next generation ESA HSRL airborne demonstrator, A. Nemuc et al. INOE **10:15 – 10:30** Raymetrics ground lidar systems for space Cal/Val, G. Georgoussis, Raymetrics
10:30 – 10:45	*Coffee break*
10:45 – 11:15	*Panel Discussion and summary of Session 5*
11:15 – 12:15	*Poster Session and discussion*
12:15 – 13:15	*Lunch break*
13:15 – 14:50	**Session 6:** *New and Emerging Space Lidar Technologies & Reliability (Chair: J. Gavira, ESA, Jason Yager, Montana Photonics Alliance)* **13:15 – 13:35** Laser development at HiLASE for space-based applications, M. Divoky et al., HiLASE **13:35 – 13:55** Microchip laser, P. Gordo et al., Synopsys Planet **13:55 – 14:15** High-Power 20 W single-mode fiber optic connector for lidar and free-space-optical communications systems, D. Basuita, Glenair **14:15 – 14:35** Metalens Origami Deployable Lidar Telescope (MODeL-T), M. Stephen, NASA **14:35-14:50** Glueless mounts for high power space optics, R. Grucheska, IOF
14:50 – 15:05	*Coffee break*
15:05 – 16:45	**Session 6:** *New and Emerging Space Lidar Technologies & Reliability (Chair: J. Gavira, ESA, N. Sawruk, Fibertek Inc.,)* **15:05 – 15:25** FLAMES, high speed flash lidar CMOS imager for landing missions, C. Gaozhan et al., Caeleste, SINTEF **15:25 – 15:45** Status and challenges of solid-state space lidars based on CMOS SPADs, E. Manuzzato et al., FBK **15:45 – 16:05** Lidar and optical comms technology and detector solutions at Teledyne e2v, J. Pratlong et al., Teledyne **16:05 – 16:25** Lidar space signal processing devices., J. Jurijs et al., EvenTech

	16:25 – 16:45 Choosing the right optical fiber for terrestrial and space lidar Systems, A. Gillooly, Fibercore Limited
Friday 23 June – Adamas Conference Center (Milos)	
08:30- 10:30	Session 6: *New and Emerging Space Lidar Technologies & Reliability (Chair: J. Gavira, ESA, M. Stephan, NASA)* Open slot for additional discussions.
10:30 – 10:45	*Coffee break*
10:45 – 11:15	Panel Discussion and Summary of Session 6
11:15 – 12:00	Technical Session Chairs presentations to Joint Sessions
12:00 – 13:00	*Lunch break*
13:00 – 14:00	Discussions about Workshop Report and venue of the next workshop
14:00 – 14:15	*Coffee break*
14:15	Adjourn