

Preliminary programme - Session 1: Ultra-stable opto-mechanical architectures (04/05 November 2019)

Author P. Hallibert

Day 1 - Monday November 4th, 2019 - Ultra-stable opto-mechanical architectures				
Start	Stop	Title	Speaker	Affiliation
13:50	14:00	Introduction	B. Ahlers, P. Hallibert, V. Kirschner	ESA
Session #1-1 - Opto mechanical systems: technologies and applications			<i>Session Chairs: T. Viard (TAS), J. Archer (ADS)</i>	
14:00	14:20	High stability space mirrors	C. du Jeu	TSESO
14:20	14:40	Ultra-stable and Affordable Opto-Mechanical Architectures for Spaceborne Telescopes	T. Hull	U. New Mexico
14:40	15:00	Future Laser Platform - FULAS for Advanced Laser Sources for Space Operation	H. Faidel	Fraunhofer ILT
15:00	15:20	Deployable CubeSat Concept for High-Resolution EO	N. Schwartz	STFC
15:20	15:50	Coffee break		
Session #1-2 - Future missions and technological challenges			<i>Session Chairs: D. Doyle (ESA), U. Wittrock (MUAS)</i>	
15:50	16:10	LIFE: The Large Interferometer for Exoplanets	D. Defrere	University of Liege
16:10	16:30	LISA: mission and technological challenges	M. Gehler	ESA
16:30	16:50	Innovative segmented aperture topologies for exoplanet and astrophysical sciences	T. Hull	U. New Mexico
16:50	17:10	Enabling technologies for large UVIS space telescopes	J. Archer	ADS
17:10	17:30	Large ultra-stable telescope system study	S. Lipsky	Ball Aerospace
17:30	17:50	Ultra-stable telescope technologies	M. Bolcar (remote)	NASA
17:50	18:10	Discussion		

Day 2 - Tuesday November 5th, 2019 - Ultra-stable opto-mechanical architectures				
Start	Stop	Title	Speaker	Affiliation
8:50	9:00	Introduction day 2	B. Ahlers, P. Hallibert, V. Kirschner	ESA
Session #1-3 - Active correction of ultrastable systems			<i>Session Chairs: F. Boquet (ESA), A. Zuccaro Marchi (ESA)</i>	
9:00	9:20	Designing a deformable mirror for space-qualification at high vibration loads	U. Wittrock	MUAS
9:20	9:40	Active metal optics for space applications	C. Reinlein	IOF
9:40	10:00	Pointing stabilisation	G. Durand	TAS-F
10:00	10:20	Test results on active optics technologies	T. Viard	TAS-F
10:20	10:50	Coffee break		
Session #1-4 - Novel materials and processes			<i>Session Chairs: G. Rodrigues (ESA), M. Erhard (OHB)</i>	
10:50	11:10	Novel material for structures and mirrors	M. LeBorgne	Kyocera
11:10	11:30	Silicon Nitride for space optical applications	S. Behar-Lafenetre	TAS-F
11:30	11:50	Ultra light SiC technology	D. Logut	ADS
Session #1-5 - Metrology and testing			<i>Session Chairs: P. Hallibert (ESA), M. Erhard (OHB)</i>	
11:50	12:10	Micro-vibration test bench for MTG	G. Taubmann	SENER
12:10	12:30	Optical Metrology Terminal for Satellite-to-Satellite Laser Ranging	O. Mandel	ADS
12:30	13:00	Discussion		
13:00	14:00	Lunch		

Programme - Session 2: Technologies for compact optical space instruments (04/05 November 2019)

Author V. Kirschner

Day 2 - Tuesday 5 November 2019 - Technologies for compact optical space instruments				
Start	Stop	Title	Speaker	Affiliation
14:00	14:10	Introduction		
Session #2-1 Components for compact instruments			<i>Session Chairs: V. Kirschner, D. Tomuta</i>	
14:10	14:30	Curved Sensors for compact and high-performance imaging systems	K. Joaquina	Laboratoire d'Astrophysique de Marseille
14:30	14:50	Multispectral Time-Delay-Integration Monolithic Image Sensor for Earth Observation	S. Thijs	IMEC
14:50	15:10	Liquid crystal devices for compact optical space instruments	A. Alvarez-Herrero	INTA
15:10	15:30	Digital Micromirror Devices for selective imaging and coherence metrology in space payloads	T. E. C. Magalhaes	University Lisbon
15:30	15:50	Complete Optical System for Space Applications	W. Mouallem	3D Plus
15:50	16:30	Coffee break		
Session #2-2 Components for compact instruments			<i>Session Chairs: A. Zuccaro Marchi, M. Esposito</i>	
16:30	16:50	Definitions of criteria for assessing feasibility and measurability of freeform surfaces	C. Du Jeu / J. Fourez	Thales SESO
16:50	17:10	Fine steering mirrors based on piezo actuators	G. Aigouy	CEDRAT TECHNOLOGIES
17:10	17:30	Ultra-black, 3D-printed space-grade titanium parts for opto-mechanical set-ups in new space applications	A. Telle	Acktar
17:30	18:00	Discussion and wrap-up		
18:00		Reception		

Day 3 - Wednesday 6 November 2019 - Technologies for compact optical space instruments				
Start	Stop	Title	Speaker	Affiliation
Session #2-3 Additive manufacturing			<i>Session Chairs: V. Moreau, V. Kirschner</i>	
9:00	9:20	Use of structure optimisation in 3D printed mirror fabrication	M. Roulet	Laboratoire d'Astrophysique de Marseille
9:20	9:40	Development and Test of a Two-Mirror Telescope using Additive Manufacturing Technology	F.C.M. van Kempen / S. Brinkers	TNO
9:40	10:00	Additive manufacturing of metal optical systems for space applications	N. Heidler	Fraunhofer IOF
10:00	10:20	Additive manufactured mirrors for CubeSats: post-processing and optical performance	W. Brzozowski / C. Atkins	UKRI-STFC
10:20	11:00	Coffee break		
Session #2-4 Miniaturization			<i>Session Chairs: D. Tomuta, M. Esposito</i>	
11:00	11:20	Recent development at Safran Reosc for Compact Space Optical Instrumentation	R. Geyl	Reosc
11:20	11:40	CINCLUS, freeform optics on board an Earth Observation mission	A. G. Moreno	INTA
11:40	12:00	Spatial Heterodyne Interferometer for Temperature Measurements in the MLT Region of the Atmosphere	K. Mantel / F. Olschewski	Max Planck Institute for the Science of Light
12:00	12:20	Integration of label-free detection in opto-fluidic systems for liquid sample analysis instrumentation	H. Leeuwis	LioniX International BV
12:20	12:40	CubeSat Optical Terminal for Quantum Key Distribution	D. K. L. Oi	University of Strathclyde
12:40	13:00	The Design of a Laser System for BECCAL – a Quantum Gas Experiment on the ISS	V. A. Henderson	Humboldt University
13:00	14:00	Lunch		
Session #2-5 Novel concepts and instruments			<i>Session Chairs: V. Moreau, L. Maresi</i>	
14:00	14:20	Fibre-coupled compound-eye telescope: a modular approach for spectrometer front optics and slit in hyperspectral push-broom spectrometers	J. Zeller	OHB
14:20	14:40	Optical segmentation of focal planes for future compact wide-field and high-resolution planetary observation missions	G. Hein	Aix Marseille University
14:40	15:00	Compressive sensing and super-resolution techniques for a high spatial resolution instrument in the MIR-TIR spectral range	D. Guzzi	CNR-IFAC
15:00	15:20	Enabling procedures to support the design and performance evaluation of a miniaturized spectrometer for Earth observation	C. Lastrì / B. Aiazzi	CNR-IFAC
15:20	15:40	The use of optical COTS technologies for small satellite instruments: The SSTL way	H. Rana	SSTL
15:40	16:20	Coffee break		
Session #2-6 Technologies for compact spectrometers			<i>Session Chairs: V. Kirschner, A. Zuccaro Marchi</i>	
16:20	16:40	Design and manufacturing of diffraction gratings for compact high resolution spectroscopy and sensing	B. Gallinet	CSEM
16:40	17:00	Convex blazed gratings for high throughput spectrographs	I. Zhurminsky	CSEM
17:00	17:20	A Programmable Hyperspectral Imager for Space Applications	A. Rouxel	LAAS-CNRS
17:20	17:50	Discussion and close-out		

Programme - Session 3: On-ground and in orbit optical instrument calibration (7/8 November 2019)

Author B. Ahlers

Day 4 - Thursday 7 November 2019 - On-ground and in orbit optical instrument calibration				
Start	Stop	Title	Speaker	Affiliation
9:00	9:20	Introduction		all
Session #3-1 - Instrument calibration of payloads on orbit <i>Session Chairs: Berit Ahlers</i>				
9:20	9:40	Pre-launch and in-flight calibration of the TROPOMI payload on-board the Sentinel-5 Precursor satellite	Antje Ludewig	KNMI Koninklijk Nederlands Meteorologisch Instituut
9:40	10:00	In-orbit monitoring of the TROPOMI-SWIR module performance	Tim van Kempen	SRON Netherlands Institute for Space Research
10:00	10:20	SCIAMACHY Calibration: Lessons Learned for Future Instruments	Guenter Lichtenberg	DLR Deutsches Zentrum für Luft- und Raumfahrt
10:20	10:40	SIMBIO-SYS STC radiometric and spectral calibration	Alessandra Slemmer	CNR-IFN Consiglio Nazionale delle Ricerche - Istituto di Fotonica e Nanotecnologie
10:40	11:00	Radiometric Calibration of the Sentinel-3 Sea and Land Surface Temperature Radiometer	Dave Smith	RAL Space
11:00	11:30	Coffee break		
Session #3-2 - Instrument calibration of payloads to be launched <i>Session Chairs: Marcel Dobber</i>				
11:30	11:50	Polarimetric calibration of a spectro-polarimeter for remote sensing and characterization of aerosols	Martijn Smit	SRON Netherlands Institute for Space Research
11:50	12:20	On-Ground Characterization and on-board calibration assembly of the EnMAP Hyperspectral Imager	Richard Wachter, Simon Baur	OHB System
12:20	12:40	3MI on-ground calibration	Céline Michel	CSL Centre Spatial de Liège
12:40	13:40	Lunch		
13:40	14:00	Overview of PLATO's Cameras on-ground and in-orbit Calibration and Characterisation	Martin Pertenais, presenter Valery Mogulsky (OHB)	DLR Deutsches Zentrum für Luft- und Raumfahrt
14:00	14:20	EUCLID – Design, Analysis, Fabrication, and Test of a 1.3 m collimator for the on-ground characterization of the EUCLID Payload Module	Gregory Lousberg	AMOS
14:20	15:00	Discussion		
Session #3-3 - Ground Support Equipment (GSE), pre-launch facilities, calibration sources <i>Session Chairs: Charlotte Pachot</i>				
15:00	15:20	CSI: a new end-to-end space instrument calibration facility at TNO in Delft (NL)	Rik Jansen	TNO
15:20	15:40	The reduced background calibration facility 2 for infrared detectors, cameras and sources		
15:40	16:00	SI-traceable tunable radiance source for spectroradiometer calibration	Christian Monte Paul Dekker	PTB Physikalisch-Technische Bundesanstalt VSL
16:00	16:30	Coffee break		
16:30	16:50	MINISTAR: A miniaturized test system for star trackers	Vanni Nardino	IFAC-CNR L'Istituto di Fisica Applicata "Nello Carrara" - Consiglio Nazionale delle Ricerche
16:50	17:10	A miniaturized device, based on an integrated photonics tunable lasers for on-board calibration of optical space instruments	Pierluigi Foglia Manzillo	cosine
17:10	17:40	Discussion		
Day 5 - Friday 8 November 2019 - On-ground and in orbit optical instrument calibration				
Start	Stop	Title	Speaker	Affiliation
Session #3-3 - Ground Support Equipment (GSE), pre-launch facilities, calibration sources - continued... <i>Session Chairs: Charlotte Pachot</i>				
8:40	9:00	Straylight setup for immersed gratings characterisation (transmission and reflection)	Gergely Dolgos	micos
9:00	9:20	On Demand Vicarious Calibration for Analysis Ready Data: The FLARE Network	Chris Durell	Labsphere
9:20	9:40	ESA ESTEC's Optics & Opto-Electronics Laboratory (OOEL) overview	Thijs Arts, Dana Tomuta, Clemens Heese	ESA ESTEC
Session #3-4 - Analysis techniques <i>Session Chairs: Grégory Bazalgette Courrèges-Lacoste</i>				
9:40	10:00	An end-to-end stray light correction analysis model for calibration of Sentinel-4	Ljubisa Babic	cosine
10:00	10:20	Status of GEMS L1B Data Processing Algorithm		
			Kyung-Jung Moon	NIER National Institute of Environmental Research
Session #3-5 - Characterisation of Instrument Spectral Response (ISR Function) <i>Session Chairs: Bernd Sierk</i>				
10:20	10:40	Sentinel-5 slit homogenizer: Performance impact of second-order effects	Timon Hummel	Airbus
10:40	11:10	Coffee break		
11:10	11:30	Interferometer-based Instrument Spectral Response Function characterisation	Ralph Snel	TNO
11:30	11:50	Determination of the TROPOMI-SWIR instrument spectral response function.		
11:50	12:10	Set-Up of a new ISRF characterization facility for airborne instruments dedicated for GHG measurements in the NIR and SWIR spectral range	Richard van Hees Konstantin Gerilowski	SRON Netherlands Institute for Space Research IUP Uni Bremen Institut für Umweltphysik Universität Bremen
12:10	12:30	Retrieving and analyzing the ISRF of Sciamachy	Mourad Hamidouche	DLR Deutsches Zentrum für Luft- und Raumfahrt
12:30	13:00	Discussion and wrap-up		all