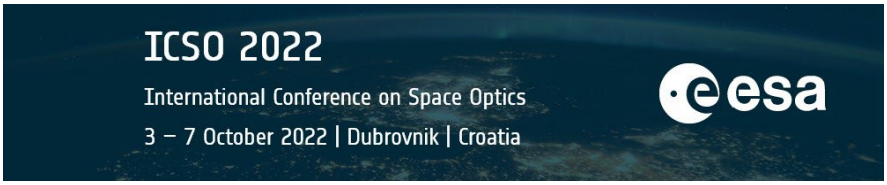


Monday, 3 October 2022

Session 1a: IMAGERS-1 SOLAR SPACE WEATHER

11:20 SUAVE, a disruptive off-axis SiC far UV Lyman-Alpha solar telescope for long term observations
Dr. Luc Damé[1], Dr. Mustapha Meftah[1], M. Patrick Lacroix[1], M. Pierre Gilbert[1], M. Nicolas Rouanet[1], Dr. Pierre Etcheto[2], Dr. Jacques Berthon[2]
[1]LATMOS CNRS Université Paris-Saclay, [2]CNES Service Optique

11:40 Sailcor - Compact Coronagraph for the Helianthus sub-L1 Mission with Solar Photonic Propulsion
Dr. Federico Landini[1], Dr. Fabio Frassetto[2], Dr. Luca Zangrilli[1], Dr. Valeria Caracci[1], Dr. Davide Loreggia[1], Prof. Silvano Fineschi[1], Dr. Alberto Riva[1]
[1]Inaf - Osservatorio Astrofisico Di Torino, [2]CNR Padova

12:00 In flight stray light reduction for the Solar Orbiter/Metis coronagraph
Dr. Federico Landini[1], METIS Team
[1]Inaf - Osservatorio Astrofisico Di Torino

12:20 Theoretical, on-ground and in-flight study of the Metis coronagraph vignetting
Mrs. Chiara Casini[1,2], Dott Vania Da Deppo[1], Dott Paola Zuppella[1], Dott. Fabio Frassetto[1], Mr Paolo Chioetto[1,2], Dott Federico Landini[3], Prof Marco Romoli[4], Mrs Yara De Leo[5,6], Dott Vincenzo Andretta[7]
[1]CNR-IFN Padova, [2]CISAS Centro di Ateneo di Studi e Attività Spaziali "Giuseppe Colombo", [3]INAF - Osservatorio Astrofisico di Torino, [4]Dip. di Fisica e Astronomia, Università di Firenze, [5]University of Catania Department of Physics and Astronomy, [6]Max Planck Institute for Solar System Research, [7]INAF - Astronomical Observatory of Capodimonte

Session 1b: WIND LIDARS

11:20 ALADIN UV LIDAR Instrument beyond 3 years in Space

Paolo Bravetti, Mr. Géraud de Villele1, Mickael Olivier1, Sylvain Arnaud, Marc Schillinger, Olivier Lecrenier, Bertrand Corselle, Didier Bon, Sophie Jallade
[1] Airbus Defence And Space

11:40 irborne Technology Demonstration for Aeolus – from Pre-launch Campaigns to Mission Performance Validation
Mr. Christian Lemmerz[1], Dr. Oliver Lux[1], Dr. Benjamin Witschas[1], Dr. Stephan Rahm[1], Dr. Uwe Marksteiner[1], Dr. Alexander Geiß[2], Mr. Fabian Weiler[1], Dr. Oliver Reitebuch[1]
[1]DLR - Deutsches Zentrum für Luft- und Raumfahrt, [2]LMU - Ludwig Maximilians Universität

12:00 Correlation Wind Lidar Processor Optimization, Development and Field-Testing
Dr. Errico Armandillo[1], Dr Pierre Derian, Prof. David Rees, Prof. Vjacheslav Lapkowsky, Mr Viktor Kurtenoks
[1]Eventech

12:20 Status of Aeolus-2 Pre-development Activities
Mr. Arnaud Heliere[1], Mr Denny Wernham
[1]Esa

Session 1c: TELESCOPE DESIGN -1

11:20 Sampling Strategies for Rotating Synthetic Aperture Space Telescopes
Mr. Evan Kramer[1], Dr. Joseph Green[2], Dr. Rebecca Masterson[1]
[1]MIT, [2]JPL

11:40 Lateral constraint for thin glass shell: analysis of the requirements and conceptual design for a segmented active mirror.
Mr. Marcello Agostino Scalera[1], Dr. Runa Briguglio
[1]INAF, [2]INAF

12:20 Interferometric imaging as alternative to telescopes
Hiyam Debary[1], Dr. Vincent Michau[1], Dr. Laurent Mugnier[1], Sébastien Lopez[2], Matthieu Castelnau[3], Dr. Frédéric Cassaing[1]
[1]ONERA, [2]AIRBUS, [3]CNES

12:40 Curved CMOS imaging sensor : benefits for space optical system design
Dr. Tahar Mehri[1], Dr. Wilfried Jahn[1], Dr. Kelly Joaquina[1]
[1]Silina

Session 1d: OPTICAL COMMS-1 DEEP SPACE MISSIONS

11:20 ESA Ground Infrastructure for the NASA JPL PSYCHE Deep-Space Optical Communication Demonstration
Dr. Daniel Rieländer[1], Dr. Sinda Mejri[1], Andrea Di Maria[1], Robert Daddato[1], Dimitrios Antsos[2], Dr. Nikos Karafolas[3], Dr. David Alaluf[3], Dr. Jorge Piris[3], Jorge Alves[3], Dr. Clemens Heese[1], Klaus-Juergen Schulz[1]
[1]European Space Operation Center (ESOC), [2]NASA - Jet Propulsion Laboratory, [3]European Space Research and Technology Centre (ESTEC)

11:40 Adaptive Optics for Daytime Deep-Space Optical Communications
Dr. Szymon Gladysz[1], Raphael Bellossi[1], Dr. Andreas Zepp[1], Douglas McDonald[1], Max Segel[1], Ruth Mackey[2], Niamh Fitzgerald[2], Dr. Karin Stein[1]
[1]Fraunhofer Institute Of Optronics, System Technologies And Image Exploitation IOSB, [2]mBryonics Ltd

12:00 Approaching capacity limits in photon-starved noisy optical communication
Dr. Marcin Jarzyna[1], Ludwig Kunz[1], Dr. Michał Jachura[1], Prof. Konrad Banaszek[1]
[1]University Of Warsaw

12:20 "Optical communication requirements for scientific missions and the Deep Space Gateway": study outcomes
Ms. Alessandra Marcer[1], Mr. Reto Muff[2], Mr. Daniel Matter[2], Mr. Dimitris Kokkinogenis[2], Ms. Veronica Spirito[3], Mr. Giulio Cossu[3], Mr. Ernesto Ciaramella[3]
[1]Thales Alenia Space, [2]Thales Alenia Space, [3]Scuola Superiore Sant'Anna University

Session 2a: SPECTROMETER-1 INSTRUMENT MISSIONS-1

14:00 Technological innovation for the ALTIUS atmospheric limb sounding mission: steps towards flight
Mr. Nicolas Saillen[1], Ms. Luciana Montrone[1], Mr. Daniel Navarro Reyes[1], Mr. David Buhler[1], Mr. Michael Francois[1], Dr. Ludovic Aballea[2], Mr. Wouter Moelans[2], Ms. Tessa Verstrynge[2], Mr. Dominique Mollet[2], Mr. Frederik Morel[2], Ms. Chabely Pollier[3], Dr. Joris Naudet[3], Mr. Luc Dayers[3], Mr. Arnaud Famelaer[3], Mr. Jeremy Bouten[3]
[1]ESA, [2]OIP Sensor Systems N.V., [3]QinetiQ Space N.V.

14:20 FLEX instrument: status, performances and lessons learnt
Mr. Matteo Taccola[1], Ms. Suzana Da Mota Silva[1], Mr. Joao Pereira do Carmo[1], Mr. Marco Baroni[2], Mr. Davide Nuzzi[2], Mr Olivier Fratacci[3], Mr Marc Barillot[3], Mr Hermann Bittner[4]
[1]Esa Estec, [2]Leonardo, [3]Thales Alenia Space, [4]OHB

14:40 The Scout 1 - CubeMAP Mission: an agile development for an innovative Payload
Dr. Wilfried Glastre[1], M Elliot Newman[2], Dr. Alex Hoffman[1], Dr. Damien Weidmann[2], Dr. Massimiliano Pastena[1]
[1]Esa/estec, [2]RAL Space

15:00 Status of the design, accommodation and performance of the TRUTHS hyperspectral imager at the end of phase B1
Dr. Kim Lake, Pierre Coste, Francois Binter, Sebastian Lopez, Lucas Courcoult Mifsud, Alex UpCott-Gill, Mark Herrington, Sylvain Fournier, Melanie Dooaeghe, Mathieu Ballester, Michael Kritzler

Session 2b: LASER for LIDARS

14:00 MERLIN High Energy Laser Source for Methane Sensing at 1645 nm
Mr. Sven Hahn[1], Dr. Dimitrios Kokkinos[1], Dr. Christopher Kühl[1], Mr. Christian Wührer[1], Ms. Janna Ammersbach[2], Mr. Bastian Gronloh[2], Mr. Hans-Dieter Hoffmann[2], Dr. Peter Bartsch[1]
[1]Airbus Defence And Space GmbH, [2]Fraunhofer-Institute for Laser Technology ILT

14:20 Optomechanical design of a 150 mJ single frequency UV laser for the AEOLUS-2 mission
Mr. Dominik Esser[1], Mr. Hans-Dieter Hoffmann[1], Mr. Benjamin Erben[1], Mr. Martin Giesberts[1], Mr. Raphael Kasemann[1], Dr. Sebastian Nyga[1], Mrs. Sarah Klein[1], Dr. Martin Traub[1], Mr. Witalij Wirz[1], Mr. Marius Leyendecker[1], Mr. Wolfgang Brandenburg[1], Mr. Jonas Eßer[1], Dr. Jürgen Klein[1], Mr. Christian Wührer[2], Mr. Sven Hahn[2], Mrs. Lucía Pérez Prieto[2]
[1]Fraunhofer-Institut f. Lasertechnik, [2]Airbus Defence & Space

14:40 System concept and thermo-mechanical design aspects of a robust and efficient Laser transmitter for the AEOLUS-2 mission
Mr. Sven Hahn[1], Mr. Fabio Paron[1], Mr. Christian Wührer[1], Mr. Martin Giesberts[2], Mr. Dominik Esser[2], Mr. Hans-Dieter Hoffmann[2], Ms. Lucia Perez Prieto[1]
[1]Airbus Defence And Space GmbH, [2]Fraunhofer Institute for Laser Technology

15:00 Development of a compact and agile 400 mJ, 100 Hz amplifier for spaceborne applications
Dr. Alexandra Rapaport[1], Philippe Becerril[1], Virgile Meyer[1], Chloe Aubry[1], Dr. Emmanuel Fretel[1], Dr. Jean-Eucher Montagne[1], Dr. Jochen Speiser[2], Dr. Georgios Tzeremes[3], Dr. Pol Ribes[3], Dr. Alex Papayannis[4]
[1]CILAS, [2]Institute of Technical Physics -DLR, [3]ESA, [4]National Technical University of Athens

Session 2c: X-RAY-1

14:00 ATHENA telescope definition, status of demonstration and performance verification
Dr. Ivo Ferreira[1], Dr. Marcos Bavdaz, Dr. Mark Ayre, Dr. Sebastiaan Fransen, Dr. Matteo Guainazzi, Dr. Erik Kuulkers
[1]Esa - Estec

14:20 Development of the optics for the Athena x-ray telescope
Mr. Max Collon[1], Mr Luis Abalo, Dr Nicolas Barrière, Dr Alex Bayerle, Mr Luigi Castiglione, Mr Noë Eenkhoorn, Dr David Girou, Mr Ramses Gunther, Mr Enrico Hauser, Mr Roy van der Hoeven, Mr Jasper den Hollander, Ms Yvette Jenkins, Dr Boris Landgraf, Dr Laurens Keek, Mr Ben Okma, Mr Paulo da Silva Ribeiro, Dr Aniket Thete, Dr Giuseppe Vacanti, Mr Sjoerd Verhoeckx, Mr Mark Vervest, Mr Roel Visser, Mr Luc Voruz, Dr Marcos Bavdaz, Dr Eric Wille, Dr Ivo Ferreira, Dr Mark Olde Riekerink, Dr Jeroen Haneveld, Ms Arenda Koelewijn, Mr Maurice Wijnperle, Mr Jan-Joost Lankwarden, Mr Bart Schurink, Mr Ronald Start, Mr Coen Van Baren, Dr Evelyn Handick, Dr Michael Krumrey, Dr Vadim Burwitz, Dr Sonny Massahi, Dr Desirée Della Monica Ferreira, Dr Sara Svendsen, Dr Finn Christensen, Mr William Mundon, Mr Gavin Phillips
[1]Cosine

14:40 ATHENA Telescope: Alignment Integration and Testing of the SPO Mirror Modules
Dr. Giuseppe Valsecchi[1], Dr Giovanni Bianucci[1], Dr Fabio Zocchi[1], Dr. Fabio Marioni[1], Dr Dervis Vernani[1], Dr Tapio Korhonen[2], Dr Giovanni Pareschi[3], Dr Marcos Bavdaz[4], Dr Ivo Ferreira[4]
[1]Media Lario, [2]Opteon, [3]INAF-OAB, [4]ESA ESTEC

15:00 VERT-X: a new calibration facility for X-ray optics
Dr. Alberto Moretti[1], Stefano Basso[1], Dr Daniele Spiga[1], Giorgia Sironi[1], Giovanni Pareschi[1], Marta Civitani[1], Vincenzo Cotroneo[1], Mauro Ghigo[1], Nicola La Palombara[1], Michela Uslenghi[1], Gianpiero Tagliaferri[1], Ivo Ferreira[2], Marcos Bavdaz[2], Paolo Corradi[2], Giuseppe Valsecchi[3], Fabio Marioni[3], Fabio Zocchi[3], Dervis Vernani[3], Massimiliano Tordi[4], Simone De Lorenzi[4], Giancarlo Parodi[5], Matteo Ottolini[5], Franco Amisano[6], Guido Parissenti[6]
[1]INAF , [2]ESA-ESTEC , [3]Media Lario , [4]EIE , [5]BCV Progetti, [6]GP Advanced Project

Session 2d: OPTICAL COMMS-2 DEMONSTRATIONS

14:00 First Experimental Demonstration of Optical Feeder Link by Using the Optical Data Relay Satellite “LUCAS”
Mr. Hideaki Kotake[1], Dr. Yuma Abe[1], Mr. Yasuhiro Takahashi[1], Dr. Takuya Okura[1], Dr. Tetsuharu Fuse[1], Mr. Yohei Sato[2], Mr. Takamasa Itahashi[2], Dr. Shiro Yamakawa[2], Dr. Morio Toyoshima[1]
[1]National Institute Of Information And Communications Technology, [2]Japan Aerospace Exploration Agency

14:20 LASIN: Direct-to-Earth optical link on-board CO3D constellation
Mr. Jérémie Lochard[1], Philippe Chéoux-Damas[1], Xavier Calmet[1], Emmanuel Giraud[1], Alexandre Jullien[1], Mehdi Ghezal[1], Lyonel Barthe[1], Laurent Coret[1], Géraldine Artaud[2], Lionel Perret[2], Mr. Nicolas de Guembecker, Pierre Viallefont[2], Eric Cazala-Hourcade[2]
[1]Airbus Defence And Space, [2]CNES

14:40 10 Gbauds digital optical bidirectional link performances between an optical ground station and a geostationary satellite
Dr. Sylvain Poulenard[1], Dr. Thomas Anfray[1], Dr. Crosnier Michael[1], Jean-Frédéric Chouteau[1], Dr. Jordane Thouras[1], Dr Charles-Ugo Piat[1], Dr. Vernhes Jean Adrien[1], Dr. Laurent Coret[1], Dr. Lyonel Barthe[1], Dr. Benjamin Gadat[1]
[1]Airbus Defence And Space

15:00 Optical Satellite Transmitter Beam Bias Verification in Data Downlinks with Open-Loop Pointing
Dr. Dirk Giggenbach, Petros Karafillis, Jonas Rittershofer, Andreas Immerz, Andreas Spörl, Steffen Gaisser, Prof. Sabine Klinkner, Marcus Knopp
[1]German Aerospace Center, DLR

Session 3a: METROLOGY-1 STRAYLIGHT

15:50 Advances in stray light characterization by ultrafast time-of-flight imaging
Dr. Lionel Clermont[1], Dr Wilfried Uhring[2], Mr Wassim Khaddour[2], Dr Pascal Blain[1], Mr Emmanuel Mazy[1], Dr Marc Georges[1]
[1]Centre Spatial De Liège, [2]University of Strasbourg

16:10 The art of characterizing light scattering from optical components and systems
Dr. Marcus Trost[1], Mr. Yusuf Sekman[1], Ms. Anne-Sophie Munser[1], Mr. Alexander Bergner[1], Dr. Tobias Herffurth[1], Mr. Paul Böttner[1], Dr. Matthias Goy[1]
[1]Fraunhofer IOF

16:30 Quantification of Phase Sensitive Back-scattered Light in Optical Systems based on Low Coherence Interferometry
Dr. Imran Khan[1], Prof. Michel Lequime[1], Dr. Myriam Zerrad[1], Dr. Claude Amra[1]
[1]Aix Marseille Univ, CNRS, Centrale Marseille, Institut Fresnel, Marseille, France

16:50 Improving stray-light characterization beyond blooming, the experience of the FLORIS Optical Model Refurbished
Dr. Davide Nuzzi[1], Dr. Lucia Pettinato[1], Enrico Fossati[1], Riccardo Gabrieli[1], Peter Coppo[1], Marco Baroni[1], Emanuela De Luca[1], Lorenzo Giunti[1], Andrea Cavanna[4], Jacopo Romano[4], Giovanni Postiglione[1], Francesco Galeotti[1], Carlo Pompei[1], Marco Barilli[1], Marc Barillot[2], Matteo Taccola[3]
[1]Leonardo S.p.a, [2]Thales Alenia Space , [3]ESA Estec , [4]Capgemini Engineering

Session 3b: DETECTORS-1 VISIBLE

15:50 Innovations in visible imaging technology to support future space missions.
Mr. Jerome Pratlong[1], Mr Paul Jerram[1], Mr Chris Rivers[1], Mr Dave Barry[1]
[1]Teledyne-e2v

16:10 The European Low Fux (CMOS) Image Sensor: a motion artefact free image sensor with High Dynamic Range for space applications.
Ajit Kalgi[1], Ybe Creten[1], Gerlinde Ruttens[1], Jente Basteleus[1], Paul Desfeux[1], Kyriaki Minoglou[2], Mr. Jan Vermeiren[1]
[1]Caeleste Cvba, [2]ESA - ESTEC

16:30 Evaluation of Microlenses, Color Filters and Polarizing Filters in CIS for Space Applications
Mr. Pierre Panuel[1], Dr. Clémentine Durnez[2], Dr. Cédric Virmontois[2], Mr. Antonsanti Aubin[3], Dr. Vincent Goiffon[3], Dr. Olivier Saint-Pé[4], Dr. Valérian Lalucaa[2], Mr. Erick Berdin[4], Dr. Jean-Marc Belloir[2], Mr. Ludovic Chavanne[4]
[1]CNES (Sophia Engineering), [2]CNES, [3]ISAE, [4]Airbus DS

16:50 High Performance Visible and SWIR Space Camera Heads for Space Applications (3DCM800 & 3DCM830)
Mr. Julien Bezine[1], Mr. Grégoire Pique[1], Mr. Damien Desdoits[1], Mr. Clément Delahouliere[1], Mr. Charles Sellier[1], Dr. Paul Serano[1], Mr. Nicolas Perrot[1], Mr. Wissam Durand-Mouallem[1], Dr. Valérian Lalucaa[2], Dr. Cédric Virmontois[2]
[1]3D Plus, [2]Centre National d'Etudes Spatiales (CNES)

Session 3c: PASSIVE OPTICAL COMPONENTS-1 ASSEMBLY & TESTING

15:50 Mid-Wave InfraRed metrology using Quadriwave Lateral Shearing Interferometry wave front sensing with low coherence quantum cascade laser sources
Dr. Benoit Wattellier[1], Dr Aurélie BETOURNE, Ivan DOUDET, Bertille GHESQUIERE, Adrien PALLARES
[1]Phasics

16:10 Enhanced Resolution Light Scattering Analyzer for Curved Gratings – ELSA/CG-S
Matthias Zilk[1], Dr. Tilman Glaser[1], Felix Koch, Dr. Martin Steglich[1], Thomas Wollweber[1], Dr. Dennis Lehr[1], Dana Tomuta[2], Volker Kirschner[2]
[1]Carl Zeiss Jena GmbH, [2]ESA/ESTEC

16:30 Micro-integrated optical systems and qualification of adhesive integration technologies for cold-atomic quantum sensors
Mr. Marc Christ[1,2], Anne Stiekel[1,2], Christoph Stölmacker[1], Conrad Zimmermann[1], Alexander Kassner[3], Marc Wurz[3], Markus Krutzik[1,2]
[1]Ferdinand-Braun-Institut gGmbH, Leibniz-Institut für Höchstfrequenztechnik, [2]Humboldt-Universität zu Berlin, [3]Leibniz Universität Hannover, Institut für Mikroproduktionstechnik

16:50 Realizing an all-glass beam splitter for space by using advanced joining technologies
Dr. Carolin Rothhardt[1], Pascal Birckigt[1,2], Kevin Grabowski[1], Dr. Stefan Risse[1], Ralph Schlegel[1], Svetlana Shestaeva[1], Dr. Stefan Schwinde[1], Dr. Sylvio Klose[3]
[1]Fraunhofer Institute for Applied Optics and Precision Engineering, [2]Institute of Applied Physics, Friedrich Schiller University, [3]Thüringer Landessternwarte Tautenburg

Session 3d: OPTICAL COMMS-3 GROUND-1

15:50 A mature 100-W 1178-nm single-frequency linearly-polarized Raman fiber amplifier for laser guide star assisted optical ground station adaptive optics systems
Dr. Daoping Wei[1], Mr. Ning Guo[1], Dr. Wallace R. L. Clements[1]
[1]MPB Communications Inc

16:10 Modelling concurrent IM/DD key distribution and data transmission over an optical LEO-to-ground link
Dr. Michal Jachura[1], Dr. Mikołaj Lasota[2], Dr. Piotr Kolenderski[2], Prof. Konrad Banaszek[1]
[1]Centre for Quantum Optical Technologies, CeNT, University of Warsaw, [2]Faculty of Physics, Astronomy, and Informatics, Nicolaus Copernicus University

16:30 Experimental assessment of various optical communication chains for high-capacity optical feeder links
Ms Anaelle Maho[1], Mr Simon Levêque[1], Mr Arnaud Le Kernec[1], Mr. Benoit Benazet[1], Mr Michel Sotom[1]
[1]Thales Alenia Space France

16:50 High-Power Free-Space Bulk Multiplexer for Satellite Communication Optical Ground Terminal
Dr. Fabrizio Silvestri[1], Linda Feenstra[2], Federico Pettazzi[1], Jan Nijenhuis[2], Jan de Vreugd[2], Dick de Bruijn[1], Remco den Breeje[2], Wimar Klop[2], Ivan Ferrario[2]
[1]TNO Optics, [2]TNO Optomechatronics

17:30 POSTER SESSION 1

1 SISSI instrument: challenges in the optical design of a super resolved compressive sensing multispectral imager in the medium infrared
Dr. Vanni Nardino[1], Dr. Donatella Guzzi[1], Dr. Cinzia Lastri[1], Dr. Lorenzo Palombi[1], Dr. Valentina Raimondi[1]
[1]CNR-IFAC

2 IR and VIS-NIR Light Sources characterization for JUICE
Mr. Juan Barbero[1], Mrs. Alessandra Barbis[2]
[1]Alter Technology Tüv Nord Sau, [2]Leonardo Company

3 Development of a straylight diagnostics tool for the MOTA OGSE
Dr. Mathieu Guilhem[1], Laurie Capobianco-Peigné[1], Charlène Mercier[2], Xavier Joffrin[2]
[1]Sophia Engineering, [2]Thales Alenia Space

4 Novel Mission Concept for global greenhouse gases emissions measurement using small satellite capabilities
Dr. Errico Armandillo[1], Dr Daria Stepanova, Prof. Vjacheslav Slapkowsky
[1]Eventech

5 Optical-fiber based source of correlated photons at ~925 nm for satellite QKD applications
Dr. Julijanas Želudevičius[1,2], Dr. Vidmantas Tomkus[1,2], Mr. Gustas Liaugminas[1], Prof. Dr. Mohsen Razavi[3], Mr. Osama Elmabrok[3,4], Dr. Laurynas Mačiulis[5,2], Mr. Martynas Milaševičius[5,2], Dr. Jorge Piris[6], Prof. Dr. Gediminas Račiukaitis[1]
[1]State Research Institute Center For Physical Sciences And Technology, [2]Astroligt UAB, [3]School of Electronic and Electrical Engineering, University of Leeds, [4]Department of Physics, University of York, [5]Antanas Gustaitis Aviation Institute, Vilnius Gediminas Technical University, [6]European Space Agency, ESTEC

6 Effects of Pointing Errors on Intensity Losses in the Optical LEO Uplink
Ms. Andrea Montserrat Carrillo Flores[1], Dirk Giggenbach[1], Marcus T. Knopp[2], Amita Shrestha[1], Davide Orsucci[1]
[1]German Aerospace Center (DLR), [2]Responsive Space Cluster Competence Center (RSC³)

7 Transportable Optical Ground Station for QKD using Adaptive Optics with a Plenoptic Wavefront Sensor
Dr. Luis Fernando Rodríguez Ramos[1], Eng. Jorge Negrín, Mr Joan Torras[1], Dr Noelia Martínez Rey[1], Mr Marcos Reyes[1], Dr Angel Alonso[1], Dr Alex Oscoz[1], Mr Jaime Ruiz[1], Elena Reyes[1]
[1]Institute of Astrophysics of the Canary Islands

8 A photonic beamformer for a transmitting phased array antenna using WDM and a programmable photonic processor
Mr. Rui Oliveira[1], Prof. Rogério N. Nogueira[1], Dr. Miguel V. Drummond[1]
[1]Instituto De Telecomunicações and Universidade de Aveiro

9 Characterization of polarizing filters for the EnVisS camera: procedure and results
Mr. Simone Nordera[1,2], Dr. Vania Da Deppo[1,2], Dr. Paola Zuppella[1,2]
[1]CNR-IFN, [2]INAF-Osservatorio Astronomico di Padova

10 Microintegrated optical isolators for visible wavelengths for space application
Dr. Marina Kaufer[1], Andreas Baatzsch[1], Dr. Mark Herding[1], Dr. Kolja Nicklaus[1], Dr. Christoph Tyborski[2], Dr. Ahmad Bawamia[2], Dr. Andreas Wicht[2], Dr. Martin Giesberts[3]
[1]Spacetech GmbH, [2]Ferdinand-Braun-Institut gGmbH, [3]Fraunhofer-Institut für Lasertechnik ILT

11 Towards space qualified Spatial Light Modulators for optical compact instrumentation
Dr. Manuel Silva-López[1], Dr Alberto Álvarez-Herrero[1]
[1]Instituto Nacional de Técnica Aeroespacial (INTA)

12 Infrared Detector Developments at Teledyne e2v for Current and Future Missions
Ian Swindells[1], Ross Wheeler[1], Paul Jerram[1], Jeremey Kendall[1], Iain Read[1]
[1]Teledyne e2v, [2]Teledyne Imaging Sensor

13 DFB laser frequency stabilization unit at 1572 nm
Mr. Juan Barbero[1], Dr. Mathieu Quatravalet[3], Dr. Gerhard Ehret[3], Dr. Thomas Kinder[2]
[1]Alter Technology Tüv Nord Sau, [2]TEM Messtechnik GmbH, [3]Institut für Physik der Atmosphäre

14 Study of Laser Ablation Induced Impulse for Laser Space Debris Removal.
Mr. Katsuhiko Tsuno[1], Dr. Satoshi Wada[1], Dr. Takayo Ogawa[1], Dr. Norihito Saito[1], Mr. Tadanori Fukushima[2], Dr. Toshikazu Ebisuzaki[1], Dr. Yusuke Nakamura[3], Dr. Akihiro Sasoh[3]
[1]RIKEN, [2]SKY Perfect JSAT, [3]Nagoya University

15 The European Optical Nucleus Network
Dr. Martin Krynitz[1]
[1]Kongsberg Satellite Services

16 Out-of-focus point sources image simulation for the Metis solar coronagraph onboard the Solar Orbiter mission
Dr. Vania Da Deppo[1], Chiara Casini[1,2], Paolo Chioetto[1,2], Dr. Fabio Frassetto[1], Dr. Paola Zuppella[1], Simone Nordera[1], Dr. Federico Landini[3], Prof. Marco Romoli[4]
[1]CNR-IFN Padova, [2]CISAS - Centro di Ateneo di Studi e Attività Spaziali "Giuseppe Colombo", [3]INAF - Osservatorio Astrofisico di Torino, [4]Dip. di Fisica e Astronomia - Università di Firenze

17 Setup for high-precision wavefront measurements: design and technical limitations
Mr. Chris Britze[1], Dr. Michael Vergöhl[1], Mr. Thomas Melzig[1], Mr. Stefan Bruns[1], Mr. Hans-Ulrich Kricheldorf[1], Dr. Philipp Henning[1], Mr. Luis Miguel Gaspar Venancio[2]
[1]Fraunhofer IST, [2]European Space Agency ESTEC

18 Low dispersion ultraviolet spectropolarimeter for astrobiological research.
Prof. Ana Ines Gomez De Castro[1], Dr. Carlos Miravet, Ana Inés de Isidro-Gómez, Dr. Juan Carlos Vallejo
[1]Universidad Complutense De Madrid

19 PROBA3-ASPIICS Coronagraph - Alignment, Performance Tests and Calibration
Mr. Camille Galy[1], Cedric Thizy[1], Jorg Versluys[2], Ann Baeke[1], Alexandra Mazzoli[1], Gerardo Capobianco[3], Silvano Fineschi[3], Davide Loreggia[3], Radek Melich[4], Karl Fleury-Frenette[1]
[1]CSL - Centre Spatial De Liège, [2]ESA - European Space Agency, [3]INAF - Istituto Nazionale di AstroFisica, [4]IPP - TOPTEC

20 A new compact fiber optic gyroscope for a better line of sight management
Dr. Bonnefois Jean-jacques[1]
[1]Ixblue

21 Advanced Concept of a Photonic Integrated Circuit Microlidar for Navigation, Landing & Debris Detection
Dr. Errico Armandillo[1], Mr Chrysovalantis Avraam, Dr Tiago Sousa, Prof Stavros Iezekiel, Dr Viktor Kurtenoks, Prof Caterina Ciminelli, Dr Dalius Petrulionis, Dr Daria Stepanova
[1]Eventech

22 Optical Calibration of the spectroradiometer based on a mini-spectrometer installed on the Solar Irradiance Sensor (SIS) for ExoMars'22 space mission
Mrs. Elisa García-Menéndez[1], Mr. Juan José Jiménez-Martín[1], Mr. Javier Martín-Oter[1], Mr. Ignacio Arruego-Rodriguez[1]
[1]INTA

23 IASI A end of life tests: main results
Mr. Jérémie Ansart[1], Mr. Olivier Vandermarcq[1], Mrs. Mathilde Faillot[1], Mrs. Laura Le Barbier[1], Mrs. Laurence Buffet[1], Mrs. Colette Villaret[1], Mr. Sylvain Restancourt[2], Mrs. Laurence Gay[3], Mrs. Eleonora Bassi[4], Mr. James Miller[4], Mr. Jean-Christophe Calvel[5]
[1]Cnes, [2]ATOS for CNES, [3]ThalesAleniaSpace, [4]EUMETSAT, [5]AKKA for CNES

24 Design and Analysis of Filter assemblies for the LSTM Instrument
Mr. Matthias Mohaupt[1], Dr. Falk Kemper[1], Dr. Andreas Rahm[2], Mr. Max Hennig[2]
[1]Fraunhofer Iof Jena, Germany, [2]Materion Balzers Optics – Optics Balzers Jena GmbH

25 SSTL Precision – A very-high resolution imager – Design through to manufacture
Mr. Steven Knox[1], Dr Diego Angarita-Jaimes[1], Mr Matthew Price[1], Mr Andrew Haslehurst[1]
[1]Surrey Satellite Technology Ltd

Tuesday, 4 October 2022

Session 4a: IMAGERS-2 Calibrations

11:20 Straylight minimization in the design of the ERO Narrow Angle Camera
Mr. Guilhem Dubroca[1], Mr. Guillaume Singer[1], Mr. Alain Durieux[1], Mr Michaël Richert[1], Mr Antoine Lecocq[1]
[1]Sodern

11:40 MSI (Multi Spectral Imager) performance check at integrated EarthCARE satellite system
Mr. Lennart Zimmermann[1], Mr. Klaus-Werner Kruse[1], Mr. Tony Canas[2], Ms. Kotska Wallace[3], Mr. Kaustav Ghose[3], Mr. Maximilian Sauer[1], Mr. Cornelius Haas[1]
[1]Airbus, [2]Surrey Satellite Technology Ltd, [3]European Space Agency

12:00 Meteosat Third Generation : MTG-I FCI PFM instrument radiometric performance
Dr. Nadege Remoue[1], M. Bruno Chetrite[1], M. Geoffroy Bordot[1], M. Philippe Martin[1], M. Donny Aminou[2], M. Micael Miranda[2], M. Mark Wilson[2]
[1]Thales Alenia Space, [2]ESA/ESTEC

12:20 Multi-Viewing, Multi-Channel, Multi-Polarisation, Imaging (3MI) Proto Flight Model (PFM) On-Gground Calibration
Dr. Yvan Stockman[1]
[1]Centre Spatial De Liege

Session 4b: Other laser instruments

11:20 ATLID (ATmospheric LIDAR) integration and initial test results on EarthCARE satellite
Dr. Cornelius Haas[1], Thomas Belhadj[2], Klaus-Werner Kruse[1], Dr. Maximilian Sauer[1], Géraud de Villèle[2], Bertrand Corselle[2], Francois Chassat[2], Georgios Tzeremes[3], Joao Pereira do Carmo[3], Kaustav Ghose[3], Kotska Wallace[3]
[1]Airbus Defence & Space GmbH, [2]Airbus Defence & Space SAS, [3]European Space Agency, ESA-ESTEC

11:40 Lifetime and Radiation tests results on High-QE Blue Fast Timing MCP-PMTs for spaceborne UV LIDAR receivers
Dr. Alex Materne[1], Olivier Gilard[1], Dr Marine Ruffenach[1], Frédéric Bourcier[1], Dr Olivier Saint Pé[2], Xavier Durand[2], Dr Dmitry Orlov[3], Emilie Kernen[3], René Glazenborg[3], Guillaume Thin[4]
[1]CNES, [2]AIRBUS DEFENCE & SPACE, [3]Photonis, [4]Intraspec Technologies

12:00 HERA mission LIDAR CDR design

Session 4c: TELESCOPE DESIGN-2

11:20 Design concept of geostationary Earth observation segmented telescope and the wavefront management scheme
Dr. Seichi Sato[1], Dr. Atsushi Okamoto[1], Kentaroh Iki[1], Dr. Makoto Hirose[1], Dr. Tadahito Mizutani[1], Dr. Toshiyoshi Kimura[1]
[1]Japan Aerospace Exploration Agency

11:40 Recent developments of space optics at Safran Reosc
Mr. Eric Ruch[1]
[1]Safran Reosc

12:00 ALTIUS Instrument: a study of scattering effects
Mr. JAVIER Moreno-Ventas[1,2], Mrs Luciana Montrone[1], Mr Nicolas Saillen[1], Mr Michael Francois[1], Mrs Daniel Navarro[1], Dr David Buehler[1,3], Mr Ludovic Aballea[4], Mr Wouter Moelans[4], Mrs Chabely Pollier[5], Mr Joris Naudet[5], Mr Arnaud Famelaer[5], Mrs Alexandra Mazzoli[6], Mr Pascal Blain[6], Mr Emmanuel Mazy[6], Mr Lionel Clermont[6]
[1]European Space Agency (ESTEC), [2]ATG Europe for European Space Agency, [3]HE Space for European Space Agency, [4]OIP Sensor Systems N.V., [5]QinetiQ Space N.V., [6]Centre Spatial Liege

Session 4d: OPTICAL COMMS-4 GROUND 2

11:20 Lunar Ground Station Comparison between Optical and RF Systems
Dr. Martin Krynitz[1]
[1]Kongsberg Satellite Services

11:40 FEELINGS, ONERA's optical ground station for AO pre-compensated GEO Feeder links demonstration
Dr. Aurélie Montmerle Bonnefois[1], Dr. Cyril Petit[1], Dr. Jean-Marc Conan[1], Dr. Anne Durecu[1], Dr François Gustave[1], Dr. Caroline Lim[1], Mr Joseph Montri[1], Dr Laurie Paillier[1], Mr Philippe Perrault[1], Mrs Marie-Thérèse Velluet[1], Mr Jean-Baptiste Volatier[1], Dr Nicolas Védrenne[1]
[1]Onera, [2]LNE-SYRTE

12:00 Double Axicons to maximize Optical Feeder Links transmission on conventional telescopes
Dr. Noelia Martinez[1], Dr Domenico Bonaccini Calia[2]
[1]Australian National University, [2]European Southern Observatory

12:20 Adaptive Optics pre-correction Demonstrator for Terabit Optical Communication Links
Mr. Kristiaan Broekens[1], Mr. Wimar Klop[1], Mr. Ivan Ferrario[1]
[1]TNO

Session 5a: SPECTROMETER-2 INSTRUMENT MISSIONS-2

14:00 Twin ANthropogenic Greenhouse Gas Observers (TANGO)
Dr. Benjamin Brenny[1], James Day[1], Bryan de Goeij[1], Emanuela Palombo[1], Andrew Bell, Nurcan Alpay Koc[1], Bas Ouwerkerk[1], Anton Leemhuis[1]
[1]TNO Industry

14:20 METimage – PFM Status Report
Dr. Oswald Wallner[1], Dr. Klaus Ergenzinger[1], Dr. Rémi Rivière[1], Dr. Frank Schmülling[2]
[1]Airbus Defense & Space GmbH, [2]DLR

14:40 IASI-NG Instrument development status
Mr. Antoine Penquer[1], mr. Lionel Carminati[2]
[1]Cnes, [2]Airbus Defence and Space

15:00 Compact static interferometer instrument studies for greenhouse gas detection
Dr. Flavio Mariani[1], Denis Simeoni[2,3], Vitalii Khodnevych[3], Nicolas Tetaz[2], Bruno Chetrite[2], Mikaël Carlavan[2], Stephane Ferron[4], Jean-Luc Vergely[4], Nurcan Alpay Kok[5], Nick van der Valk[5], Hedser van Brug[5], Benjamin Brenny[5], Jochen Landgraf[6], Stephanie Rusli[6], Roman Windpassinger[1], Bernd Sierk[1]
[1]ESA - ESTEC, [2]Thales Alenia Space France, [3]IRT, [4]ACRI-ST, [5]TNO, [6]SRON

Session 5b: LASER for lidars and frequency combs

14:00 Comparative study with high-quality, functionally coated Alexandrite crystals for spaceborne LIDAR applications
Ms. Stefanie Unland[1], Roland Kalms[1], Peter Weßels[1], Tammo Böntgen[1], Heinrich Mädebach[1], Michael Hunnekuhl[1], Dietmar Kracht[1], Mirco Lorrai[2], Pier Giorgio Lorrai[2], Mahmoud Hmidat[2], Justinas Butkus[3], Laurynas Lukoševičius[3], Jörg Neumann[3]
[1]Laser Zentrum Hannover e.V., [2]Optomaterials S.r.l., [3]Altechna Coatings

14:20 Dowsizing SuperCam Laser: 100g, 10 mJ for compact LIBS instrument
Dr. Baya Bennai[1], Romain Simonnot[1], Christophe Derycke[1], Stéphane David[1], Eric Durand[1], Sylvestre Maurice[2]
[1]Thales LAS France, [2]IRAP

14:40 Figure-8 type optical frequency comb for spaceborne precision microwave reference
Mr. Yuichi Takeuchi[1], Mr. Taishu Kurihara[1], Mr. Takahiro Yamada[1], Mr. Shun Endo[1], Ms. Saya Matsushita[2], Dr. Aru Suemasa[2], Mr. Toshitaka Sasaki[2], Dr. Hiroshi Takiguchi[2], Dr. Isao Kawano[2], Dr. Satoshi Kogure[2], Dr. Mitsuru Musha[1]
[1]University Of Electro-Communications, [2]Japan Aerospace Exploration Agency

15:00 Radiation tolerant optical frequency comb for space applications
Dr. Matthias Lezius[1], Msc. Daniela Penka[1], Dr Gilles Melin[2], Dr Thierry Robin[2], Dr Benoit Cadier[2], Dr Jochen Kuhnhenn[3], Dr Udo Weinand[3], Dr Ronald Holzwarth[1]
[1]Menlo Systems GmbH, [2]iXBlue Photonics, [3]Fraunhofer INT

Session 5c: -RAY-2

14:00 BEaTriX, the new facility to measure the modular X-ray optics of the ATHENA telescope with an expanded and parallel X-ray beam
Mr. Stefano Basso[1], Dr Bianca Salmaso[1], Dr Daniele Spiga[1]
[1]Inaf - Osservatorio Astronomico Di Brera

14:20 MINERVA installation status, an X-ray facility for the characterization of the ATHENA mirror modules at the ALBA synchrotron
Dr. Dominique Heinis[1], Antonio Carballedo[1], Carles Colldelram[1], Guifré Cuní[1], Núria Valls Vidal[1], Alejandro Sánchez[1], Joan Casas[1], Josep Nicolàs[1], Maximilien Collon[2], Giuseppe Vacanti[2], Michael Krumrey[3], Ivo Ferreira[4], Marcos Bavdaz[4]
[1]Synchrotron Alba, [2]cosine measurement systems, [3]Physikalisch-Technische Bundesanstalt, [4]European Space Agency

14:40 Update on the Status of the Ongoing ATHENA Optics Testing at PANTER
Dr. Vadim Burwitz[1], Dr. Marcos Bavdaz[2], Dr. Ivo Ferreira[2], Maximilien Collon[3], Dr. Giuseppe Vacanti[3], Dr. Surangkhana Rukdee[1], Gisela Hartner[1], Thomas Schmidt[1], Dr. Thomas Müller[1], Dr. Andreas Langmeier[1]
[1]Max Planck Institute For Extraterrestrial Physics, [2]European Space Agency (ESA), [3]cosine measurement systems

15:00 LEXI Segmented Slumped Micropore Optic Calibration at PANTER
Dr. K. D. Kuntz[1], Dr. Vadim Burwitz[2], Mr. Rousseau Nutter[3], Mr. Cadin Connor[4], Ms. Gisela Hartner[2], Dr. Thomas Müller[2], Ms. Catriana Paw U[4], Dr. Scott Porter[5], Dr. Surangkhana Rukdee[2], Mr. Thomas Schmidt[2], Prof. Brian Walsh[4]
[1]Johns Hopkins University/NASA GSFC, [2]MPI fur extraterrestrische Physik PANTER X-ray test facility, [3]Howard University/NASA GSFC, [4]Boston University, [5]NASA Goddard Space Flight Center

Session 5d: OPTICAL COMMS-5 QUANTUM COMMS-1

14:00 Hybrid BBM92 approach for GEOQKD – Lab implementation and future perspectives
Dr. Luca Mazzarella[1], Gustavo Castro do Amaral[1], Bob Dirks[1], Ivan Ferrario[1], Sander Kossen[1], Daniele Finocchiaro[2], Alessandro Le Pera[2], Martina Ottavi[3], Gabriele Riccardi[3]
[1]TNO, [2]Eutelsat, [3]Thales Alenia Space Italy

14:20 High-performance 1560 nm Entangled Photon Source for high secure key rates QKD satellite-based communications
Dr. Jean-Marc Merolla[2], Dr. Emmanuel Fretel[1], Mr. Benjamin Pages[1], Dr. Johann Cussey[1], Dr. Romain Martinenghi[1], Mr. Jerome Prieur[1], Dr. Jorge Piris[3]
[1]Aurea Technology, [2]Institut FEMTO-ST, UMR 6174 CNRS-Université de Franche-Comté, [3]ESA/ESTEC

14:40 Dual-downlink quantum key distribution with entangled photons: Prospects for daylight operation
Mr. Andrej Kržič[1], Mr. Daniel Heinig[1], Mr. Matthias Goy[1], Mr. Fabian Steinlechner[1]
[1]Fraunhofer IOF

15:00 Advances in entanglement-based QKD for space applications
Mr. Sebastian Ecker[1], Dr. Johannes Pseiner[1,2], Jorge Piris[2], Martin Bohmann[3]
[1]Institute for Quantum Optics and Quantum Information (IQOQI), [2]ESA - ESTEC, [3]Quantum Technology Laboratories GmbH (qtlabs),

Session 6a: METROLOGY-2 OPTICAL CHARACTERIZATION & CALIBRATION

15:50 TRUTHS: Towards the in flight calibration of a hyperspectral imager to SI traceable standards.
Dr. Kim Lake, Pierre Coste, Francois Binter, Sebastian Lopez, Frederick Pasternak, Alex UpCott-Gill

16:10 ASPIICS Shadow Position Sensors digital twin and illumination testbed
Dr. Davide Loreggia[1], Dr. Silvano Fineschi[1], Dr. Gerardo Capobianco[1], Dr. Salvatore Caschera[1], Dr. Massimiliano Belluso[2], Giuseppe Massone[1], Dr. Luca Zangrilli[1], Dr. Valeria Caracci[1], Dr. Francesco Amadori[1]
[1]National Institute for Astrophysics, Italy, [2]National Institute for Astrophysics, Italy

16:30 In-Orbit Verification of an Optical Frequency Reference on the ISS Bartolomeo Platform
Dr. Thilo Schuldt[1], Tasmim Alam[1], Jonas Bischof[1], Tim Blomberg[1], Ludwig Blümel[3], Alex Boac[1], Andre Bußmeier[1], Martin Gohlke[2], Frederik Kuschewski[1], Markus Oswald[1], Jan Wüst[1], Thomas Zechel[3], Xavier Amigues[4], Andreas Eckardt[4], Winfried Halle[4], Bernd Zender[4], Jan Hrabina[5], Ahmad Bawamia[8], Klaus Döringshoff[8], Christian Kürbis[8], Markus Krutzik[8], Andreas Wicht[8], Michael Jentsch[7], Salome Schweikle[7], Norbert Beller[6], Christian Dahl[6], Martin Großmann[6], Timo Liebherr[6], Kai Voss[6], Claus Braxmaier[1,9]
[1]German Aerospace Center (DLR), Institute of Quantum Technologies, [2]German Aerospace Center (DLR), Institute of Space Systems, [3]German Aerospace Center (DLR), Institute of Communications and Navigation, [4]German Aerospace Center (DLR), Institute of Optical Systems, [5]Institute of Scientific Instruments, Czech Academy of Sciences, [6]SpaceTech GmbH, [7]Airbus Defence and Space GmbH, [8]Ferdinand-Braun-Institut gGmbH, Leibniz-Institut für Höchstfrequenztechnik, [9]Universität Ulm, Institute of Microelectronics

16:50 Design, manufacturing, aligment and testing of the GEometrical and Spectral Test Assembly (GESTA) for the on-ground characterization of the Meteosat Third Generation Infrared Sounder (MTG-IRS)
Dr. Vincent Lavielle[1], Dr. Gregory P. Lousberg[1], Virgile Monamy[1], Laurent Wera[1], Thibault Leseur[1], Dr. Mélanie Godart[1], Jochem van der Maas[1], Dr. Carlo Flebus[1]
[1]Amos

Session 6b: DETECTORS-2 SWIR

15:50 High dynamic range HgCdTe APD detector dedicated to LIDAR applications: design and test results
Dr. Eric De Borniol[1], Johan Rothman[1], Jean-Alain Nicolas[1], Jean-Pierre Rostaing[1], Giacomo Badano[1], Julie Abergel[1], S. Gout[1], X. Baudry[1]
[1]Cea/Leti Minatec Campus

16:10 NEW SWIR STARING ARRAYS FOR EARTH OBSERVATION SPACE APPLICATIONS AT LYNRED
Mr. Philippe Chorier[1], Mr. Emmanuel Larique[1]
[1]Lynred

16:30 Remanence characterization of NGP detector in SWIR bands
Dr. Jean-michel Gaucel[1], Mr. Adrien LEFEBURE[1], Dr. Alexandre GAUCHER[2], Mr. Geoffrey BOUCHAGE[2], Mr. Eric SANSON[2]
[1]Thales Alenia Space, [2]Lynred

16:50 III-V based high-performance photodetectors in the non-visible regime – from UV to IR
Dr. Volker Daumer[1], Dr. Rolf Aidam[1], Andreas Bächle[1], Dr. Rachid Draid[1], Tsvetelina Hugger[1], Dr. Robert Keil[1], Dr. Lutz Kirste[1], Dr. Stefano Leone[1], Dr. Christian Manz[1], Dr. Raphael Müller[1], Jasmin Niemasz[1], Dr. Thorsten Passow[1], Dr. Robert Rehm[1], Dr. Frank Rutz[1], Dr. Tim Stadelmann[1], Dr. Mark Wobrock[1], Dr. Andreas Wörl[1], Dr. Quankui Yang[1]
[1]Fraunhofer Institute for Applied Solid State Physics IAF

17:10 Low reflectivity, reference pixels in Mercury Cadmium Telluride
Mr. Dan Owton[1], Dr Les Hipwood, Mr Jim Gordon, Miss Audrey Cooper, Miss Emma D'Arcy, Mr Marcus Lee, Mr Matthew Hicks
[1]Leonardo

Session 6c: PASSIVE OPTICAL COMPONENTS-2 GRATINGS AND MICROSTRUCTURED COMPONENTS-1

15:50 The Dual-blazed Diffraction Grating of the CHIME Hyperspectral Instrument: design, modelling & breadboarding.
Mr. Etienne Renotte[1], Dr Benoit Borguet[1], Dr Vincent Moreau[1], Dr Gregory Lousberg[1], Mr Romain Vandoolaeghe[1], Dr Roberto Di Paola[1]
[1]AMOS

16:10 Holographically patterned blazed gratings with low groove density
Dr. Martin Steglich[1], Matthias Burkhardt[1], Alexander Kalies[1], Dr. Michael Helgert[1], Dr. Dennis Lehr[1]
[1]Carl Zeiss Jena GmbH

16:30 Convex blazed gratings for high throughput spectrographs in space missions
Dr. Frederic Zamkotsian[1], Dr. Roger Krähenbühl[2], Mr. Patrick Lanzoni[1], Dr. Guillaume Basset[2], Dr. Myriam Zerrad[3], Dr. Michel Lequime[3], Dr. Claude Amra[3], Mr. Vincent Costes[4], Dr. Jacques Loesel[4]
[1]Laboratoire Astrophysique Marseille, [2]CSEM, [3]Institut Fresnel, [4]CNES

16:50 Light scattering from diffraction gratings
Dr. Martin Heusinger[1], Dr. Marcus Trost[1], Ralf Steinkopf[1], Michael Banasch[2], Dr. Thomas Flügel-Paul[1]
[1]Fraunhofer IOF, [2]Vistec Semi GmbH

Session 6d: OPTICAL COMMS-6 QUANTUM COMMS-2

15:50 Applicability of squeezed-and coherent-state continuous-variable quantum key distribution over satellite links
Dr. Vladyslav Usenko[1]
[1]Palacky University

16:10 ANAtOLIA : a mobile station for site availability characterization for Optical Communications links
Prof. Aziz Ziad[1], Dr Christophe Giordano[1], M Alessandro Aresta[2], Dr Eric Aristidi[1], M Christophe Bailet[1], Prof Filippo Berto[3], Dr Chiara Bertolin[3], Prof Marcel Carbillet[1], M Stefano Cavazzani[3], M Damien Ceus[4], M Thibaud Charbonnel[1], Dr Julien Delanoë[6], M Jacques Descloitres[8], M Yan Fanteï-Caujolle[1], M Adrien Gillioën[1], Ms Yenni Gonzalez-Ramos[5], Dr Abdenour Irbah[6], Ms Estelle Jacqmart[1], M Arnaud Le Kernec[7], M Olivier Liandrat[4], M Sylvain Poulenard[2], Prof Jérôme Riédi[8], M Nicolas Schmutz[4], Dr Stéphane Victori[5]
[1]University/Observatory Côte D'azur & CNRS, [2]Airbus Defence & Space, [3]Norwegian University of Science and Technology, [4]Réuniwatt, [5]Cimel Electronique, [6]Latmos, [7]Thales Alenia Space, [8]ICARE, CNRS

16:30 MEO Satellite-to-Ground Decoy-State QKD links Performance Analysis
Mr. Argiris Ntanos[1], Dr. Nikolaos Lyras[1], Mr. Dimitris Zavitsanos[1], Dr. Giannis Giannoulis[1], Mr. Saif Anwar[2], Mr. Obada Alia[2], Prof. George Kanellos[2], Prof. Athanasios Panagopoulos[1], Prof. Hercules Avramopoulos[1]
[1]NTUA/ICCS, [2]SCEEM University of Bristol

17:30 POSTER SESSION-2

26 The MOONRISE-Payload as proof of principle for Mobile Selective Laser Melting of Lunar Regolith
Dr. Jörg Neumann[1,4], Mathias Ernst[1], Patrick Taschner[1], Jan Perwas[1], Dr. Roland Kalms[1], Tjorben Griemsmann[1], Tim Eismann[1], Robert Bernhard[1], Piet Dyroey[1], Dr. Peter Wessels[1], Benedict Grefen[2], Julian Baasch[2], Simon Stapperfend[2], Dr.-Ing Stefan Linke[2], Prof. Dr.-Ing. Enrico Stoll[2], Prof. Dr.-Ing. Ludger Overmeyer[1,3,4], Dr. Dietmar Kracht[1,4], Prof. Dr.-Ing. Stefan Kaierle[1,3,4]
[1]Laser Zentrum Hannover e.V., [2]Technische Universität Berlin, [3]Leibniz University Hannover, [4]Cluster of Excellence PhoenixD

27 Evaluation of radiation hardness of InP-based Photonic Integrated Circuits for space applications
Antonio Pérez Serrano[1], Alicia Soria[1], Juan Barbero[2], David Poudereux[2], José Manuel G. Tijero[1], Ignacio Esquivias[1]
[1]Universidad Politécnica de Madrid, [2]Alter Technology TÜV Nord S.A.U.

28 Active optics for the DICOS project
M. Jean-Michel Le Duigou[1], Mr Christophe Latry[1], Mr Laurent Bernard[2], Mr Antoine Salih Alj[1,3], Mr Mathias Soulier[4]
[1]Cnes, [2]Magellium, [3]INSA, [4]ISAE

29 An account of the Euclid payload module test results
Mr. Luis Miguel Gaspar Venancio[1], Dr. René Laureijs, Mr. Giuseppe Racca, Ms. Elena Maiorano, Dr. Alex Short, Mr. Tobias Boenke, Dr. Paolo Strada, Dr. Roland Vavrek, Mr. Laurent Brouard, Dr. Paolo Musi
[1]European Space Agency

30 Spatially resolved scattering metrology to quantify losses induced by contamination and defects
Mr. Adrien Bolliand[1], Dr. Myriam Zerrad[1], Pr. Michel Lequime[1], Pr. Claude Amra[1]
[1]Aix Marseille Univ, CNRS, Centrale Marseille, Institut Fresnel, Marseille, France

31 Feasibility study of a Terabit/s GEO-to-Ground WDM Optical Communication Link
Mrs. Veronica Spirito[1], Dr. Giulio Cossu[1], Prof. Ernesto Ciaramella[1]
[1]Scuola Superiore Sant'anna

32 Total Polarization-Dependent Loss of Cascaded Optical Components for Optical Space Applications
Dr. Hamza Hallak Elwan, Dr. Tarik Benaddi
[1]Thales Alénia Space

33 A study of design trade-off of Skinakas Optical Ground Station upgrade
Mrs. Pandora Examilioti[1], Dr. Giannis Drougakis[1], Dr. Wolf von Klitzing[1], Prof. Dimitris Papazoglou[1,2]
[1]Institute of Electronic Structure and Laser, Foundation for Research and Technology Hellas, [2]Materials Science and Technology Department, University of Crete

34 Development of High power Er/Yb Polarization Maintaining Optical Amplifier for Ground Station Uplink Systems
Dr. Hamid E Limodehi[1], Dr Youngjae Kim[1], Dr Serguei Papernyi[1]
[1]MPB Communications Inc

35 Optical Wireless Interfaces for the MIL-STD 1553 bus
Mr. Lorenzo Gilli[1], Dr. Giulio Cossu[1], Mr. Nicola Vincenti[1], Ms. Ezgi Ertunc[1], Ms. Elisa Mestice[1], Mr. Emiliano Pifferi[2], Mr. Fulvio Bresciani[3], Prof. Ernesto Ciaramella[1]
[1]Scuola Superiore Sant'anna Di Pisa, [2]Thales Alenia Space, [3]Thales Alenia Space

36 AO-enhanced Quantum Communications with the ANU Optical Ground Station
Dr. Noelia Martinez[1], Dr Francis Bennet[1]
[1]Australian National University

37 Long term durability of protected silver coating for the mirrors of Ariel mission telescope
Mr. Paolo Chioetto[1], Mr. Paul Eccleston[4], Dr. Giuseppe Malaguti[5], Dr. Giuseppina Micela[6], Prof. Emanuele Pace[7], Prof. Enzo Pascale[8], Dr. Raffaele Piazzolla[9], Dr. Giampaolo Preti[7], Dr. Mario Salatti[9], Prof. Giovanna Tinetti[11], Dr. Elisabetta Tommasi[9], Daniele Brienza[9], Dr. Andrea Tozzi[10], Dr. Paola Zuppella[1], Rodolfo Canestrari, Elisa Guerriero[7, 6]
[1]CNR-Istituto di Fotonica e Nanotecnologie di Padova, [2]Centro di Ateneo di Studi e Attività Spaziali "Giuseppe Colombo"- CISAS, [3]INAF-Osservatorio Astronomico di Padova, [4]RAL Space, STFC Rutherford Appleton Laboratory, [5]INAF-Osservatorio di Astrofisica e Scienza dello spazio di Bologna, [6]INAF-Osservatorio Astronomico di Palermo, [7]Dipartimento di Fisica ed Astronomia-Università degli Studi di Firenze, [8]Dipartimento di Fisica, La Sapienza Università di Roma, [9]ASI, Agenzia Spaziale Italiana, [10]INAF-Osservatorio Astrofisico di Arcetri, [11]Department of Physics and Astronomy, University College London

38 High-efficiency fiber optic amplifiers for new space constellation applications
Dr. Ron Logan[1], Mr. Davinder Basuita[2]
[1]Glenair Inc., [2]Glenair Ltd.

39 Pixelated multi-spectral filters assessment for space applications
Dr. Mathieu Boutillier[1], Karine Mathieu[1], Dr Sophie Petit-Poupart[1], Dr Cédric Virmontois[1], Dr Edoardo Cucchetti[1], Dr David Veyrié[1], Marc Hubert[2], Stéphane Tisserand[2]
[1]Cnes, [2]SILIOS Technology

40 Curved CMOS imaging sensor: development and test plan for space applications
Dr. Kelly Joaquina[1], Marc Renard[1], Dr Tahar Mehri[1], Dr Sabri Lemared[1], Dr Quentin Struss[1], Dr Wilfried Jahn[1]
[1]SILINA

41 Design of the Tx Attenuating Photoreceiver for the LISA stray light assessment instrumentation
Dr. Marco Nardello[1], Dr. Michel Lintz[1]
[1]CNRS Artemis, [2]Observatoire de la Cote d'Azur

42 ZERODUR® characteristics that enable ultrastability for landmark future European and US Space Missions
Prof. Tony Hull[1], Dr. Ralf Jedamzik, Dr. Janina Krieg, Dr. Thomas Westerhoff
[1]University Of New Mexico

43 Meter class optical coatings
Mr. David Harrison[1]
[1]Materion Balzers Optics

44 Quantum Magnetometry for Space
Dr. Mark Bason[1], Dr Tristan Valenzuela[1], Dr Cameron Deans[2]
[1]RAL Space, [2]National Quantum Computing Centre

45 ESA Activities and Perspectives on Laser Tracking Instrument for NGGM/MAGIC Mission
Mr. Olivier Carraz[1], Mr. Luca Massotti[2], Dr. Kai-Cristian Voss[3], Dr. Kolja Nicklaus[3], Apl. Prof. Dr. Gerhard Heinzel[4], Dr. Vitali Müller[4], Mr. Arnaud Heliere[2], Mrs. Anne Ferri[3], Mrs. Marina Kaufer[3], Mrs. Johanna Flock[3], Mr. Mark Herding[3], Mr Bailey Allen Curzadd[3], Mr Markus Weller[3], Mr. Bernardo Carnicero Dominguez[2]
[1]RHEA For ESA, [2]ESA, [3]SpaceTech GmbH, [4]Max-Planck-Institute for Gravitational Physics (Albert-Einstein-Institut)

46 Development of a spectrometer for greenhouse gas detection based on compressive sensing and photonic crystal filters
Dr. Ralf Kohlhaas[1], Dr. Marijn Siemons[1], Menno Hagenaar[2], Dr. Auréle Adam[2]
[1]SRON Netherlands Institute for Space Research, [2]TU Delft

47 Spectral contamination between diffraction orders of the NIR spectrometer (TGO) but possible solutions to overcome it.
Dr. Abdanour Irbah[1], Dr. Jean-Loup Bertaux[1], Dr. Franck Montmessin[1], Nicolas Rouanet[1], Alexander Trokhimovskiy[2], Dr. Oleg Korablev[2], Dr. Anna Fedorova[2]
[1]LATMOS/ CNRS / UVSQ Paris-Saclay University / SU 11 Boulevard D'Alembert, [2]Space Research Institute (IKI), 84/32 Profsoyuznaya, 117997

48 Birefringent interferometer for compact snapshot hyperspectral imaging
Mr. Matthieu Porte[1], Ms. Elisa Baldit[2], Mr. Frédéric Bernard[2], Mr. Yann Ferrec[1], Mr. Nicolas Guerineau[1]
[1]Onera, [2]CNES

49 Albedo bias reduction for Nanocarb GHG sensor : comparison of panchromatic or hyperspectral ancillary imager, and high finesse or multiple harmonics Fabry-Perot interferometer
Dr. Yann Ferrec[1], Dr. Laurence Croizé[1], Dr. Pierre-Yves Foucher[2]
[1]Onera, [2]Onera

50 METimage – Results of the Mechanical and Thermal Verification Campaign
Dr. Francesca Cucciarrè[1], Robert Schweikle[1], Heiko Joos[1], Armin Hauser[1], Michael Jentsch[1], Werner Felder[1], Felix Rebell[2]
[1]Airbus Defence & Space GmbH, [2]Deutsches Zentrum für Luft- und Raumfahrt

51 Study and proof of concept of a freeform TMA designed for nanosat space infrared imaging applications
Mr. Clément Freslier[1], Mr. Louis Duveau[1], Mr. Guillaume Druart[1], Mr. Jean-Baptiste Volatier[1], Mr. Thierry Lépine[2], Mr. Arnaud Helière[3], Mr. Christophe Buisset[3], Mr. Tibor Agocs[3]
[1]ONERA-The French Aerospace Lab, [2]Univ Lyon, Laboratoire Hubert Curien CNRS UMR 5516, [3]European Space Agency, ESTEC

52 Solar Irradiance Sensor of RDM Exomars 2022 calibration
Dr. Juan José Jiménez Martín[1], Mrs. Elisa García-Menendez[1], Dr. Miguel Gonzalez-Guerrero Bartolomé[1], Mr. Javier Martinez Oter[1], Dr. Ignacio Arruego Rodríguez[1]
[1]Inta - Instituto Nacional De Técnica Aeroespacila

Wednesday, 5 October 2022

Session 7a: IMAGERS-3 TECHNOLOGIES

11:20 JUICE JANUS camera integration and optical alignment results
Dr. Francesco Sarti[1], Dr. Lorenzo Francesco Livi[1], Dr. Antonio Colosimo[1], Dr. Alessandro Dattolo[1], Dr. Iacopo Ficai Veltroni[1], Dr. Vincenzo Della Corte[2], Dr. Marilena Amoruso[3], Prof. Pasquale Palumbo[2,4], Livio Agostini[5,2], Alessio Aboudan[5]
[1]Leonardo S.p.a., [2]Istituto Nazionale di Astrofisica (INAF), [3]Agenzia Spaziale Italiana (ASI), [4]Università degli Studi di Napoli Parthenope, [5]Center of Studies and Activities for Space (CISAS)

11:40 Design of the EnVisS instrument Optical Head
Mr. Riccardo Gabrieli[1], Dr Riccardo Gabrieli[1], Dr Giuseppe Impicciché[1], Dr Chiara Graziosi[1], Dr Demetrio Labate[1], Dr Fabio Belli[1], Dr Chiara Cicciarelli[1], Dr Claudio Pernechele[2], Dr Paola Zuppella[2,3], Dr Paolo Chioetto[2,3,4], Dr Simone Nordera[2,3], Dr H. Jones Geraint[5,6], Dr George Brydon[5,6], Dr Anamarija Stankov[7], Dr Vincenzo Della Corte[8], Dr Vania Da Deppo[3,4]
[1]Leonardo Spa, [2]INAF-Osservatorio Astronomico di Padova, [3]CNR-Istituto di Fotonica e Nanotecnologie, [4]CISAS G. Colombo, Università di Padova, [5]UCL, Mullard Space Science Laboratory, [6]The Centre for Planetary Sciences UCL/Birkbeck, [7]ESA/ESTEC , [8]IAPS-INAF

12:00 Full-SiC Derotator Optics for METimage: flight hardware status
Mr. Christian Bastin[1], Philippe Bronlet[1], Brunella Carlomagno[1], Alexis Feutry[1], Nicolas Fontana[1], Pierre Gloesener[1], Fabien Lemagne[1], Yves Martin[1], Aikaterini Radioti[1], Etienne Renotte[1], Solal Thomas[1], Armin [DE] Jago[2], Michel Bougoin[3], Florent Mallet[3]
[1]AMOS, [2]Airbus Defence and Space GmbH, [3]Mersen Boostec SAS

12:20 Thermal and dynamic qualification test results on PLATO optical mount groups based on lenses made of brittle materials (CaF2, S-FPL51)
Mr. Emanuele Capuano[1], Mr. Matteo Burresi[1], Mr. Andrea Novi[1], Mr. Enrico Battistelli[1], Mr. Massimo Marinai[1], Mr. Mario Salatti[2], Mr. Timothy Bandy[3], Mr. Martin Rieder[3], Mr. Demetrio Magrin[4], Mrs. Valentina Viotto[4]
[1]Leonardo SpA, [2]ASI, [3]University of Bern, [4]INAF

Session 7b: DIALS

11:20 All-semiconductor continuous-wave volumetric ranging for spaceborne differential absorption lidar
Dr. Simone Bianconi[1], Dr. John A. Dykema[2], Dr. Eric A. Kittlaus[1], Dr. Mahmood Bagheri[1], Dr. Siamak Forouhar[1]
[1]Jet Propulsion Laboratory, [2]Harvard University

11:40 MERLIN (MEthane Remote sensing LIdar missioN) – Heading towards PFM and Observation of Interesting Effects
Ms. Nina Strasser[1], Mr. Christian Wührer[1], Mr. Christopher Kühl[1], Mr. Markus Haiml[1], Mr. Dirk Viehmann[1], Mr. Michael Kritzler[1]
[1]Airbus Defence and Space Gmbh

12:00 Short Comb Atmospheric Lidar Experiment (SCALE): principle and perspectives for a new LIDAR concept
Dr. Marion Costella[1], Jordi Roubichou, Mathieu Boutillier, Philippe-Jean Hébert, Romain Arguel, Alex Materne, Pierre Lafrique, Véronique Tyrou
[1]CNES

12:20 Pump tunable mirroless OPO : an innovative concept for future space IPDA emitter
Mr. Kjell Martin Mølster[1], Ms. Marie Guionie[2], Mr. Patrick Mutter[1], Mr. Jean-Baptiste Dherbecourt[2], Mr. Jean-Michel Melkonian[2], Mr. Xavier Delen[3], Mr. Andrius Zukauskas[1], Ms. Carlota Canalias[1], Mr. Fredrik Laurell[1], Mr. Patrick Georges[3], Ms. Myriam Raybaut[2], Mr. Antoine Godard[2], Mr. Valdas Pasiskevicius[1]
[1]Royal Institute of Technology (KTH), [2]DPHY, ONERA, Université Paris-Saclay, [3]Université Paris-Saclay, Institut d'Optique Graduate School, CNRS,Laboratoire Charles Fabr

Session 7c: TELESCOPE TECHNOLOGY

11:20 Contactless actuators and pyramid wavefront sensor, the SPLATT concept for space active optics: an overview of the project and the last laboratory results.
Dr. Runa Briguglio[1], Dr Marcello Scalera, dr Marco Xompero, dr Marco Riva, dr Carmelo Arcidiacono, dr Ciro del Vecchio, dr Riccardo Muradore, dr Nicolò Azzaroli
[1]INAF - Istituto Nazionale Di Astrofisica

11:40 Printed Athermal Mirror (PAM) based on AlSi40 and NiP coating for space application
Mr. Arnd Reutlinger[1], Mr. Sebastian Eberle[1], Mr. Christoph Wislnack[2], Ms. Juliane Moritz[2], Mr. Andreas Stute[3], Mr. Stefano Lucarelli[3], Ms. Ana Brandao[4], Mr. Joel Larsson[4]
[1]Kampf Telescope Optics GmbH, [2]Fraunhofer Institute for Material and Beam Technology, [3]Airbus Defence and Space GmbH, [4]European Space Research and Technology Centre

12:00 Miniature three-mirror telescope for the thermal infrared
Dr. Thomas Peschel[1], Henrik von Lukowicz[1], Lucas Zettlitzer[1], Dr. Johannes Hartung[1], Dr. Stefan Risse[1], Dr. Matthias Beier[2], Marius Bierdel[3], Max Gulde[3]
[1]Fraunhofer Institute for Optics and Precision Engineering IOF, [2]SPACEOPTIX GmbH, [3]ConstellR GmbH

12:20 New silicon carbide with light scattering reduction
Marc FERRATO[2], Dr Marin FOUCHIER[1], Matthieu TATAT[3], Pierre ETCHETO[3], Dr. Myriam Zerrad[1]
[1]Institut Fresnel, [2]MERSEN Boostec, [3]CNES

Session 7d: OPTICAL COMMS-7 SPACE

11:20 CLICK Mission Flight Terminal Optomechanical Integration and Testing
Mr. William Kammerer[1], Maddie Garcia[1], Hannah Tomio[1], Dr. Paul Serra[1], Charles Lindsay[1], Peter Grenfell[1], Ondrej Čierny[1], Dr. Kerri Cahoy[1], Dr. Myles Clark[2], Dani Coogan[2], Dr. John Conklin[2], David Mayer[3], Dr. Jan Stupl[3], Dr. John Hanson[4]
[1]MIT Space, Telecommunications, Astronomy, and Radiation (STAR) Laboratory, [2]UF Precision Space Systems Laboratory , [3]NASA Ames Research Center, [4]CrossTrac Engineering

11:40 Transmitter and Fine Pointing System Development and Testing for the CubeSat Laser Infrared CrosslinK (CLICK) B/C Mission
Ms. Hannah Tomio[1], William Kammerer[1], Peter Grenfell[1], Ondrej Čierny[1], Madeline Garcia[1], Charles Lindsey[1], Nicholas Belsten[1], Paul Serra[1], Kerri Cahoy[1], Myles Clark[2], Danielle Coogan[2], John Conklin[2], Jan Stupl[4], David Mayer[4], John Hanson[3]
[1]Massachusetts Institute Of Technology, [2]University of Florida, [3]CrossTrac Engineering, [4]NASA Ames Research Center

12:00 Space Optical Instrument for GEO - Ground Laser Communications
Dr. Paul Berceau[1], Stéphane Angibault[1], Dr. Adrien Barbet[1], Jean Claude Barthes[1], Damien Blattes[1], Nicolas De Guembecker[1], Raphael Fidanza[1], Emilie Gary[1], Vincent Lefftz[1], Thibault Marduel[1], Florent Tajan[1], Ludovic Zurawski[1]
[1]Airbus

12:20 Space infrastructures for Quantum-Safe Secure Communications: Technologies, Roadmap and Initiatives from an industrial standpoint
Ms. Martina Ottavi[1], Mr Gabriele Riccardi[1], Mr Paolo Conforto[1], Mr Alessandro Pisano[1]
[1]Thales Alenia Space

Session 8a: SPECTROMETER-3 INSTRUMENT MISSIONS-3

14:00 MICROCARB INSTRUMENT, OVERVIEW AND FIRST RESULTS
Ms. Elodie Cansot[1], Ms Laurie Pistre[1], Mr Matthieu Castelnau[1], Mr Philippe Landiech[1], Mr Laurent Georges[2], Mr Yann Gaeremynck[2], Mr Philippe Bernard[2]
[1]Cnes, [2]Airbus D&S France

14:20 COPERNICUS Sentinel-4: Calibration Campaign Results and Performances
Dr. Gregory Bazalgette Courreges-Lacoste[1], Olivier Seger[2], Maximilien Harlander[2], Stephan Riedl[2]
[1]ESA, [2]Airbus Defence and Space GmbH

14:40 The Copernicus CO2M payload for monitoring anthropogenic carbon dioxide emissions
Dr. Denis Serre[1], Dr. Antoine Dussaux[1], Dr. Yannig Durand[2], Dr. Gregory Bazalgette Courrèges-Lacoste[2], Charlotte Pachot[2], Frank te Hennepe[3]
[1]Thales Alenia Space, [2]European Space Agency, [3]OHB System

15:00 CHIME's Hyperspectral Imager (HSI): Status of Instrument Design and Performance at PDR
Dr. Peter Buschkamp[1], Dr. Julian Hofmann[1], Dr. Diogo Rio Fernandes[1], Peter Haberler[1], Michael Gerstmeier[1], Dr. Christoph Bartscher[1], Stephane Bianchi[2], Patrice Delpet[2], Dr. Heidrun Weber[3], Helene Strese[3], Dr. Jens Nieke[3]
[1]OHB System AG, [2]Thales Alenia Space, [3]European Space Agency (ESA), European Space Research and Technology Centre (ESTEC)

Session 8b: LASER- LISA

14:00 Development of LISA Laser System at NASA
Dr. Kenji Numata[1], Dr. Anthony Yu[1], Clifford Brambora[1], Jordan Camp[1], Molly Fahey[1], Ali Feizi[2], Kevin Heesh[3], Hua Jiao[1], Oleg Konoplev[4], Matthew Mullin[1], Scott Merritt[1], William Mamakos[4], Steven Marlow[5], Demetrios Poulios[1], Paula Pruessner[1], Michael Rodriguez[6], Aleksey Vasilyev[4], Stewart Wu[1], Xiaozhen Xu[4], Aaron Yevick[1]
[1]NASA Goddard Space Flight Cent, [2]AK Aerospace Technology Corporation, [3]Relative Dynamics Inc, [4]Science Systems & Applications, [5]ATA Aerospace, [6]Hexagon

14:20 Independent Reliability Assessment of the NASA GSFC Laser Transmitter for the ESA LISA Program
Dr. Upendra Singh[1], Mr Charles Antill[1], Mr Mulugeta Petros[1], Mr. Mathew Joplin[2], Dr. Neal Spellmeyer[3], Dr. Malcolm Wright[4], Dr. Erik Zuker[5], Dr. Anthony Yu[2]
[1]NASA Langley Research Center, [2]NASA Goddard Space Flight Center, [3]Massachusetts Institute Of Technology, Lincoln Lab, [4]NASA Jet Propulsion Laboratory, [5]Zuker Consulting

14:40 European laser development for LISA
Dr. Katrin Dahl[1], Andreas Baatzsch[1], Frederik Baron[1], Patricia Betz[1], Christian Dahl[1], Sven *Dittmar[1], Mark Herding[1], Joachim Krieger[1], Timo Liebherr[1], Hanjo Schäfer[1], Laura Schäfer[1], Pavel Serenok[1], Janosch Kownatzki[2], Heiko Schillinger[2], Pelin Cebeci[3], Oliver Fitzau[3], Martin Giesberts[3], Martin Gohlke[4], Jose Sanjuan[5]*
[1]SpaceTech, [2]Tesat-Spacecom , [3]Fraunhofer Institute for Laser Technology, [4]Deutsches Zentrum für Luft- und Raumfahrt, Institute of Space Systems, [5]Deutsches Zentrum für Luft- und Raumfahrt, Institute for Quantum Technologies

15:00 LISA laser head metrology and test results
Dr. Emmanuel Onillon[1], Ms Lauriane Karlen[1], Dr. Stefan Kundermann[1], Dr Steve Lecomte[1], Dr Kenji Numata[2], Dr Michael Rodriguez[2], Dr Anthony Yu[2]
[1]Centre Suisse D'electronique et de Microtechnique SA, [2]National Aeronautics and Space Administration

Session 8c: X-RAY-3

14:00 The Calibration Tests of Einstein Probe FXT – QM and FM at PANTER Facility
Dr. Surangkhana Rukdee[1], Dr. Peter Friedrich[1], Dr. Vadim Burwitz[1], Ms. Gisela Hartner[1], Dr. Thomas Müller[1], Mr. Thomas Schmidt[1], Dr. Andreas Langmeier[1]
[1]Max Planck Institute for Extraterrestrial Physics

14:20 SVOM MXT Optic and Telescope Testing at PANTER
Dr. Vadim Burwitz[1], François Gonzalez[2], Karine Mercier[2], Jean-Michel Le Duigou[2], Dr. Diego Götz[3], Dr. Aline Meuris[3], Dr. Charlotte Feldman[4], Jim Pearson[4], Richard Willingale[4], Paul O'Brien[4], Gisela Hartner[1], Dr. Surangkhana Rukdee[1], Thomas Schmidt[1], Dr. Thomas Müller[1], Dr. Andreas Langmeier[1]
[1]Max Planck Institute For Extraterrestrial Physics, [2]CNES Centre National d'Etudes Spatiales , [3]CEA Irfu/Département d'Astrophysique , [4]University of Leicester

14:40 Optical design and performance simulations for the 1.49 keV beamline of the BEaTriX X-ray facility
Dr. Daniele Spiga[1], Dr. Bianca Salmaso[1], Dr. Stefano Basso[1], Dr. Mauro Ghigo[1], Dr. Giorgia Sironi[1], Dr. Gabriele Vecchi[1], Dr. Vincenzo Cotroneo[1], Dr. Giovanni Pareschi[1], Dr. Gianpiero Tagliaferri[1], Davide Sisana[1,2], Dr. Claudio Ferrari[3], Dr. Riccardo Lolli[3], Dr. Marcos Bavdaz[4], Dr. Ivo Ferreira[4], Dr. Vadim Burwitz[5], Dr. Surangkhana Rukdee[5], Dr. Gisela Hartner[5], Dr. Thomas Mueller[5], Dr. Thomas Schmidt[5], Dr. Andreas Langmeier[5], Dr. Desiree Della Monica Ferreira[6], Dr. Nis Gellert[6], Dr. Sonny Massahi[6]
[1]INAF - Brera Astronomical Observatory, [2]Politecnico di Milano-Bovisa, [3]IMEM-CNR, [4]European Space Agency, [5]Max-Planck-Institüt für extraterrestrische Physik, [6]DTU-space

15:00 The X-ray testing of Einstein Probe Wide-field X-ray Telescope Qualification Model at PANTER
Dr. Surangkhana Rukdee[1], Dr. Vadim Burwitz[1], Ms. Gisela Hartner[1], Mr. Thomas Schmidt[1], Dr. Thomas Müller[1], Dr. Andreas Langmeier[1], Dr. Peter Friedrich[1]
[1]Max Planck Institute for Extraterrestrial Physics

Session 8d: OPTICAL COMMS-8 SPACE

14:00 SGL Activities with Uplink Communication from Switzerland with the T-AOGS
Mr. Robert Mahn[1], Mr. Julian Woicke[1], Mr. Johannes Seidel[1], Mrs. Karen Saucke[1], Dr. Thomas Marynowski[1], Dr. Patricia Martín Pimentel[1], Dr. Frank Heine[1]
[1]Tesat Spacecom

14:20 Designing transmit optical amplifiers for the current roll out of optical communication constellations
Dr. James Edmunds[1], Dr. Naresh Thipparapu[1], Mr Marios Kechagias[1], Ms Karen Hall[1], Mr Aubin Donnot[1], Dr Peter Kean[1], Dr Stratos Kehayas[1], Dr Matthew Welch[1]
[1]G&H

14:40 Design and Development of PhLEXSAT – A Flexible Photo-Digital Communication Payload for Very High Throughput Satellites
Dr. Chiara Palla[1], Dr. Madhubrata Chatterjee[1], Mr. Edem Fiyamanya[1], Mr. Steve Legate[1], Dr. Marta Beltran[2], Dr. Miguel Angel Piqueras[2], Mr. Antoni Castells Cervello[3], Mr. Laurent Roux[3], Dr. Patrick Runge[4], Mr. Nigel Cameron[5], Mr. Jakub Zverina[6]
[1]MDA Space and Robotics, [2]DAS Photonics S.L., [3]Eutelsat, [4]Fraunhofer – Institut für Nachrichtensysteme, Heinrich-Hertz-Institut (HHI), [5]Axenic, [6]Argotech

15:00 High power optical amplifier at 1.5 µm for GEO and LEO optical feeder links
Mr. Thomas Schmitt[1], Mr. Raphael Cousty[1]
[1]CILAS

Session 9a: METROLOGY-3 GRAVIMETRY

15:50 ESA Activities and Perspectives on Quantum Space Gravimetry
Mr. Olivier Carraz[1], Mr. Luca Massotti[2], Mr. Ilias Daras[2], Mr. Arnaud Heliere[2], Mr. Pierluigi Silvestrin[2]
[1]RHEA For ESA, [2]ESA

16:10 CARIOQA: Definition of a Quantum Pathfinder Mission
Dr. Thomas Lévèque[1], Christine Fallet[1], Julien Lefebve[1], Dr. Alexandre Gauguet[2], Dr. Baptiste Battelier[3], Dr. Philippe Bouyer[3], Dr. Naceur Gaaloul[4], Dr. Maike Lachmann[4], Dr. Ernst Rasel[4], Dr. Christian Schubert[4], Dr. Quentin Beaufils[5], Dr. Franck Pereira Dos Santos[5]
[1]Cnes, [2]LCAR, Université Paul Sabatier, [3]LP2N, IOGS, CNRS, Université de Bordeaux, [4]Leibniz University Hannover, [5]LNE-SYRTE, Observatoire de Paris, Université PSL, CNRS

16:30 Exploring quantum gases for space-borne interferometry
Prof. Ernst M. Rasel[1]
[1]Leibniz University Hannover, [2]Excelelence Cluster Quantum Frontiers

16:50 Off-axis Optical Bench Design for Next Generation Gravity Mission
Dr. Kailan Wu[1,2], Dr. Bo Peng[2,5], Professor Xuling Lin[2], Dr. Yun Wang[2], Dr. Jingui Wu[2], Professor Xuhui Shen[3], Professor Xiaotao Chang[4], Professor Yun-Kau Lau[5,7], Professor Yongchao Zheng[2,7], Professor Jianjun Jia[6,7], Dr. Yichao Yang[6,7]
*[1]1.School of Physical Science and Technology, Lanzhou University, Lanzhou 730000, China, [2]2.Beijing Institute of Space Mechanics and Electricity, China Academy of Space Technology, Beijing 100094, China, [3]3.National Institute of Natural Hazards, Ministry of Emergency Management of China, [4]4.Land Satellite Remote Sensing Application Center, Ministry of Natural Resources, Beijing 100048, China, [5]5. Morningside Center of mathematics, Chinese Academy of Sciences, Beijing, 100190, China, [6]6. Shanghai Institute of Technical Physics, Chinese Academy of Sciences, Shanghai, 200083, China, [7]*Corresponding author*

Session 9b: DETECTORS-3 MWIR/LWIR

15:50 Development of T2SLS LWIR Focal Plane Arrays for the Hyperspectral Thermal Imager (HyTI)
Dr. Sarath Gunapala[1], Dr. David Ting, Dr. Sir Rafol, Dr. Alexander Soibel, Dr. Arezou Khoshakhlagh, Mr. Sam Keo, Dr. Brian Pepper, Dr. Anita Fisher, Dr. Cory Hill, Prof. Paul Lucey, Prof. Robert Wright, Dr. Miguel Nunes, Dr. Luke Flynn, Dr. Ashok Sood, Dr. John Zeller, Sachidananda Babu, Parminder Ghuman
[1]Nasa Jet Propulsion Laboratory

16:10 NEW DEVELOPMENTS OF MULTILINEAR AND MULTISPECTRAL INFRARED SENSORS FOR SPACE APPLICATIONS AT LYNRED
Mr. Nicolas Jamin[1], Mr. Frederic Salvetti[1], Mr Laurent Baud[1], Mr Jocelyn Berthoz[1], Mr Lilian Martineau[1], Mr Philippe Chorier[1]
[1]Lynred

16:30 Pyroelectric Detector for EE9 FORUM: Design and Characterization
Dr. Andreas Neuzner[1], Alexander Hacker[1], Lucia Perez-Prieto[1], Raman Mistry[2]
[1]Airbus Defence And Space, [2]Leonardo UK

16:50 Results of the METimage HgCdTe flight photodetector test campaign
Dr. Rémi Rivière[1], Henrique Candeias[1], Laurent Vial[2], Céline Riuné[2], Dr. Michael Skegg[1], Olivier Saint-Pé[3]
[1]Airbus Defence And Space GmbH, [2]LYNRED, [3]Airbus Defence And Space SAS

Session 9c: PASSIVE OPTICAL COMPONENTS-3 GRATINGS AND MICROSTRUCTURED COMPONENTS-1

15:50 HORIBA LATEST Diffraction gratings embedded solutions on Earth observation missions
Ms. christelle Megier[1]
[1]Horiba

16:10 Manufacturing of a highly efficient gold coated echelle grating for NIR on a thick silicon substrate with small straylight and wavefront error
Mrs. Susann Sadlowski[1], Dr. Thomas Flügel-Paul, Martin Wittig, Tino Benkenstein, Jan Nathanael, Dr. Marcus Trost, Peter Munzert, Michael Scheler, Prof. Dr. Uwe Zeitner
[1]Fraunhofer Institute for Applied Optics and Precision Engineering IOF

16:30 Towards a spatial light modulator technology for space applications: performance analysis under the environmental conditions
Mrs. Sara Francés González[1], Dirk Berndt[1], Guzmán Borque Gallego[2], Donato Borrelli[4], Ulrike Dauderstädt[1], Peter Dürr[1], Mark Eckert[1], Jörg Heber[1], Detlef Kunze[1], Christophe Pache[2], Giuseppe Pilato[4], Valentina Raimondi[3], Enrico Suetta[4], Hannes Torlee[1], Antoine Ummel[2], Michael Wagner[1]
[1]Fraunhofer IPMS, [2]CSEM, Centre Suisse d'Electronique et Microtechnique, [3]CNR – IFAC, Istituto di Fisica Applicata "Nello Carrara", [4]LEONARDO S.p.A.

16:50 Ultra-compact machined Slicer IFU
Mr. Takashi Sukegawa[1], Dr Haosheng Lin[2], Mr Morgan Bonnet[2]
[1]Canon.inc, [2]University of Hawaii

Session 9d: OPTICAL COMMS-9 SPACE

15:50 HydRON Vision: preparation towards a flight demonstration
Dr. Guray Acar[1], Dr Pantelis-Daniel Arapoglou[1], Dr Emiliano Re[1], Mr Angelo Altamura[1], Dr Alberto Mengali[1], Mr Wael El-Dali[1], Ms Monica Politano[1], Dr Harald Hauschildt[1], Dr Josep Perdigues[1], Mr Vincenzo Schena[2], Mr Luca Rodio[2], Mr Alberto Pandolfi[2], Mr Peter Schwaderer[3], Mr Ian Petersen[3], Mr Joern Streppel[3], Mr Klaus Schoenherr[3]
[1]European Space Agency, [2]Thales Alenia Space Italia S.p.A, [3]Airbus Defence and Space GmbH

16:10 Piezoelectric and magnetic fast steering mirrors for space optical communication
Mr. Gérald Aigouy[1], Mr. Adrien Guignabert[1], Mr. Etienne Betsch[1], Mr. Augustin Bedek[1], Mr. Nicolas Bourgeot[1], Mr. Anthony Baillus[1], Mr. Hugo Grardel[1], Mr. Pierre Personnat[1], Mr. Jean-Marc Nwesaty[1], Mr. Xavier De Lepine[1], Mr. Marc Fournier[1], Mr. Sylvain Duc[1], Mr. Olivier Sosnicki[1], Mr. Thomas Maillard[1], Dr. Frank Claeyssen[1]
[1]Cedrat Technologies

16:30 Focal Plane Assembly demonstrator for two-way Laser communication link
Mr. Jean-Baptiste Haumonte[1], Ms Nathalie Gimbert[1], Mr Paul Berceau[2], Mr Nicolas De Guembecker[2]
[1]Bertin Technologies, [2]Airbus Defence & Space

16:50 Optical transmission of multi-Tera-bits/sec to quantum bits over Space intra- and inter-orbital links
Dr. Le Binh[1], Axel Hof[2], Dr. Maximillian Koegler[3], Carsten Fechtmann[4], Joachim Horwath[5]
[1]Mynaric Lasercom GmbH, [2]Mynaric Lasercom GmbH, [3]Mynaric Lasercom GmbH, [4]Mynaric Lasercom GmbH, [5]Mynaric Lasercom GmbH

17:30 POSTER SESSION-3

53 The Optical Payload Systems Facility (OPSys) of the Italian National Institute for Astrophysics (INAF): a review of the successfully completed and of the forthcoming test campaigns
Dr. Silvano Fineschi[1], Dr. Gerardo Capobianco[1], Dr. Gianalfredo Nicolini[1], Dr. Davide Loreggia[1], Dr. Luca Zangrilli[1], Dr. Federico Landini[1], Dr. Valeria Caracci[1], Giuseppe Massone[1], Dr. Maurizio Pancrazzi[1], Dr. Marco Romoli[2], Dr. Alessandro Liberatore[1], Dr. Donata Bonino[1], Dr. Massimiliano Belluso[3], Dr. Francesco Amadori[1], Dr. Salvatore Caschera[1]
[1]National Institute for Astrophysics, Italy, [2]University of Florence, Dip. of Astronomy, [3]National Institute for Astrophysics, Italy

54 Multispectral Filter Spectral Characterisation Setup
Mr. Hans Thiele[1], Mr Michael Gisi[1], Mr Bernhard Sang[1], Mr Phil Daro Krummrich[2]
[1]OHB System AG, [2]OHB Digital Connect GmbH

55 CATS: upgrade of the atmospheric characterization station for both optical telecommunication and astronomical support
Dr. Christophe Giordano[1], Pr. Aziz Ziad[1], Dr. Eric Aristidi[1], Dr. Julien Chabé[2], Yan Fanteï-Caujolle[1], Christophe Bailet[1]
[1]Laboratoire J.L. Lagrange, OCA, UCA, CNRS, UMR 7293, Parc Valrose 06108 Nice Cedex 2, France, [2]Université Côte d'Azur, OCA, CNRS, IRD, Géoazur, 2130 route de l'Observatoire, 06460 Caussols, France

56 Next-generation white light source for on-board characterisation and monitoring
Dr. Ralph Snel[1], Niels Dijkhuizen[1], Dana Tomuta[2]
[1]TNO, [2]European Space Agency

57 Testing the influence of atmospheric turbulence on the performance of satellite ranging based on optical link
Miss Anuradha Anarthe[1], Mr. Mikolaj Lasota[1], Mr. Jacek Goczkowski[2], Dr. Piotr Kolenderski[1]
[1]Nicolaus Copernicus University, [2]Syderal Polska

58 Sophisticated band pass filters and dichroic by PARMS technology for the LSTM project
Dr. Andreas Rahm[1], Max Hennig[1], Marc Lappschies[1], Dr. Stefan Jakobs[1], Bruno Badoil[2], Emilie Steck[2]
[1]Materion Balzers Optics - Optics Balzers Jena GmbH, [2]AIRBUS Defence & Space

59 Numerical prediction and multimodal metrology of light scattered by high performance optical components
Dr. Myriam Zerrad[1], Pr Michel LEQUIME[1], Dr Marin FOUCHIER[1], Dr Imran KHAN, Dr Xavier BUET, Adrien BOLLIAND, Pr Claude AMRA[1]
[1]Institut Fresnel

60 Space-grade Gallium Arsenide IQ and Modulator Arrays for VHTS Photonic SatCom Systems
Mr. Stephen Clements[1], Dr. Robert Walker[1], Mr. Nigel Cameron[1], Dr. Yi Zhou[1]
[1]aXenic Ltd.

61 Optical Frequency Comb Manipulation Based on Multi-Sine Wave Phase-Only Modulation for Satellites' Payload Applications
Mr. Ioannis Stratakis[1], Mr. Chrysovalantis Avraam[1], Prof Stavros Iezekiel[1]
[1]University Of Cyprus

62 Iodine based reference laser for ground tests of LISA payload
Mr. Alexis Mehlman[1], Mr. David Holleville[1], Mr. Michel Lours[1], Mr. Rodolphe Le Targat[1], Mr. Peter Wolf[1], Mr. Sebastien Bize[1], Mr. Ouali Acef[1], Mr. Aurélien Boutin[2], Mrs. Karine Lepage[2], Mr. Ludovic Fulop[2]
[1]Obspm - Syrte, [2]iXblue - Photonic Solutions Division

63 Laser frequency stabilisation for the LISA mission using a cubic cavity
Dr. Geoffrey Barwood[1], Dr. Alessio Spampinato[1], Dr. Peter Tsoulos[1], Mr Conor Robinson[1], Prof Patrick Gill[1], Dr. Jonathan Stacey
[1]National Physical Laboratory

64 Laser beam soldering of exotic optic materials
Mrs. Grucheska Rosario Rodriguez[1], Dr Iciar Montilla[2]
[1]IOF Fraunhofer, [2]Institute of Astrophysicis

65 Specialized light-absorbing coatings as an alternative to vanes in star-trackers
Mr. Alexander Yevtushenko[1], Ms. Dina Katsir[1], Ms. Irene Katsnelson[1]
[1]Acktar

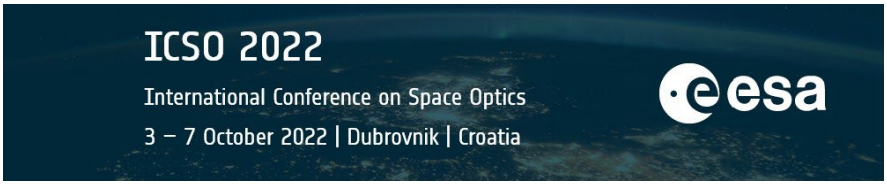
66 End-to-end measurement of tilt-to-pathlength coupling effects for LISA
Mr. Nils Frederik Hasselmann[1], Ms. Christina Brugger[1], Mr Ewan Fitzsimons[2], Mr. Ulrich Johann[1], Prof. Gerhard Heinzel[3], Mr. Dennis Weise[1], Mr. Alexander Sell[1]
[1]Airbus DS GmbH, [2]UK Astronomy Technology Centre, Royal Observatory Edinburgh, [3]AEI

67 An innovative laser bench for a high performance compact cesium CPT clock
Jérémie Cotxet[1,2], François Gutty[1], Ghaya Baili[1], David Holleville[2], Loïc Morvan[1], Stephane Guerandel[2], Daniel Dolfi[1]
[1]Thales Research & Technology, [2]Observatoire de Paris

68 Optical Ranging and Time Transfer Calibration on the CubeSat Laser Infrared CrosslinK Mission
Dr. Paul Serra[1], Dr. Myles Clark[2], Joseph Conroy[2], William Kammerer[1], Peter Grenfell[1], Hannah Tomio[1], Maddie Garcia[1], Nick Belsten[1], Jacob Harburg[1], Charles Lindsay[1], David Mayer[3], Jan Stupl[3], Dr John Hanson[4], Danielle Coogan[2], Prof John Conklin[2], Prof Kerri Cahoy[1]
[1]Department of Aeronautics and Astronautics, Massachusetts Institute of Technology, [2]Department of Mechanical and Aerospace Engineering, University of Florida, [3]NASA Ames Research Center, [4]CrossTrac Engineering

69 Hyperspectral cameras designs and constraints for small satellite private EO missions: perspectives for coastal water quality monitoring applications and markets, the ENTRUST mission case
Dr. Yoanna-Reine Nowicki-Bringuier[1], Dr. Liviu Jalba[2], Dionysis Grigoriadis[3], Theophilos Valsamidis[3]
[1]SAT4Space, [2]Microelectronica S.A. , [3]Planetek Hellas

70 Front-window replacement and performance characterization of a commercial digital micro-mirror device for use in the infrared spectrum
Dr. Christophe Pache[1], Dr. Guzmán Borque Gallego[1], Laurent Giriens[1], Antoine Ummel[1], Dr. Donatella Guzzi[2], Dr. Valentina Raimondi[2]
[1]CSEM, Centre Suisse d'Electronique et de Microtechnique, [2]CNR – IFAC, Istituto di Fisica Applicata "Nello Carrara"



Thursday, 6 October 2022

Session 10a: IMAGERS-4 INSTRUMENTS

11:20 LSTM instrument: design, technology and performance
Mr. François Bernard[1], Ilias Manolis[1], Ana Bolea Alamañac[1], Itziar Barat[1], Miguel Such Taboada[1], Tiziana Cardone[1], Alessandra Ciapponi[1], Gianluca Furano[1], Pascal Hallibert[1], Arvid Hammar[1], David Merodio Codinachs[1], Pilar Mingorance[1], Sandro Patti[1], Thierry Tirolien[1], Etienne Dutruel[1], Adrian Garcia[1], Piotr Skrzypek[1], Vincent Chorvalli[2], Guillaume Bourgeois[2], Sophie De Zotti[2], Emilie Steck[2], Nicolas Guardiola[2], Pierre-Olivier Antoine[2], Jean-Christophe Nonnet[2], Michael Seymour[2], Olivier Gry[2], Paul Jougla[2], Isabel Cabeza Vega[3], Oriol Alvarez Trotta[3]
[1]ESA - ESTEC, [2]Airbus DS SAS, [3]Airbus DS SAU

11:40 Super-resolved compressive demonstrator for Earth Observation applications in the Medium Infrared: instrumental concept, optical design and expected performances
Valentina Raimondi, Massimo Baldi, Dirk Berndt, Tiziano Bianchi, Guzmán Borque Gallego, Donato Borrelli, Chiara Corti, Francesco Corti, Marco Corti, Ulrike A. Dauderstädt, Peter Dürr, Andrea Gonnelli, Roberto Carlà, Sara Francés González, Donatella Guzzi, Demetrio Labate, Nicolas Lamquin, Cinzia Lastri, Enrico Magli, Emiliano Marzi, Vanni Nardino, Lorenzo Palombi, Christophe Pache, Giuseppe Pilato, Enrico Suetta, Diego Valsesia, Michael Wagner
[1]CNR-IFAC

12:00 TRISHNA TIR instrument development and performance status
M. Didier Charvet[1], M. Xavier Gnata[1], M. François Chassat[1], Mrs. Laurence Buffet[2], Mrs. Corinne Salcedo[2], M. Sébastien Marcq[2], M. Renaud Binet[2], M. Aurélien Ledot[2], M. Thierry Carlier[2]
[1]AIRBUS, [2]CNES

12:20 New generation, compact and smart space Earth observation instrument
Mr. Geoffroy Bordot[1], Mr. Romain Auribault[1]
[1]Thales Alenia Space

Session 10b: Optical Amplifiers and Lasers

11:20 Development of a highly-efficient amplifier system for 10-channel satellite laser communication in the context of the HydRON project
Mr. Alexander Büttner[1], Mr. Sven Hochheim[1], Dr. Peter Weßels[1], Willy Fittkau[1], Dr. Jörg Neumann[1], Dr. Dietmar Kracht[1], Eike Brockmüller[1], Felix Wellmann[1]
[1]Laser Zentrum Hannover e.V.

11:40 A passively heat-sunk 6-W 1064-nm linearly-polarized fiber amplifier with a 100 ˚C operational temperature range for LEO satellite optical communications
Dr. François Gonthier[1], Viorel Poenariu, Sean McCarthy, Qi Yang Peng, Daoping Wei, Vincent Latendresse
[1]MPB Communications Inc.

12:00 Operational Lifetime Qualification of Laser Diodes for BECCAL
Dr. Karl Häusler[1]
[1]Ferdinand-Braun-Institut

12:20 Micro-Non-Planar Ring Oscillator Master Oscillator for the NASA LISA Laser Transmitter
Dr. Anthony Yu[1], Dr Kenji Numata[1], Dr Scott Merritt[1], Dr Bryan Nelsen[2], Dr David Demmer[2], Mr Jonathan Goettler[2], Dr Tom Haslett[2], Dr Thomas Kane[3]
[1]NASA, [2]Avo Photonics, Inc., [3]Kane OE

Session 10c: TELESCOPE CHARACTERISATION & METROLOGY

11:20 Copernicus Sentinel-2C/D Multi Spectral Instrument Straylight characterization due to the Earth albedo
Mr. Mickaël Olivier[1], Mr. Rémi Bellouard[1], Mr. Thomas Belhadj[1], Ms. Sandie Deslous[1], Mr. Sylvain Thomas[1]
[1]Airbus Defence & Space

11:40 Metrological setups for the optical characterization of highly compact, large aperture, fast, diffraction limited freeform Telescopes and the use of the Helmholtz-Lagrange Invariant to assess optical design robustness.
Dr. Paolo Sandri[1], Dr. Alessandro Boni[1], Dr. Michael Deiml[1], Dr. Markus Erhard[1], Dr. Maximilian Freudling[1], Eng. Thomas Sedlmaier[1], Paolo Muraro[1]
[1]OHB System AG

12:00 Scene-based wavefront correction using SPGD algorithm for high-resolution Earth observation
Dr. Makoto Hirose[1], Prof. Norihide Miyamura[2], Dr. Seich Sato[1], Dr. Tadahito Mizutani[1], Dr. Toshiyoshi Kimura[1]
[1]Japan Aerospace Exploration Agency, [2]Meisei University

Session 10d: OPTICAL COMMS-10 SPACE

11:20 HgCdTe APD detector module for deep space optical communications
Dr. Johan Rothman[1], Dr. Salvatore Pes[1,2], Dr. Julie Abergel[1], Mr. Sylvain Gout[1], Mr. Antoine Coquiard[1], Dr. Giacomo Badano[1], Mr. Gilles Lasfargues[1], Mrs. Aurelie Vandeneyde[1], Mr. Jean-Alain Nicolas[1], Sinda Mejri[3], Mr. Jean-Louis Santailler[1]
[1]Cea/leti, [2]III-V labs, [3]ESA-ESOC

11:40 WDM Optical Front End for GEO-Ground Digital and Analog Telecommunications
Dr Clément Guyot[1], Arnaud Laurent[2], Dr. Jerome Hauden[1], Thomas Anfray[3], Olivier Pouzargues[3]

12:00 Bidirectional Channel Pre-Compensation using Automatic Power Control Optical Amplifier in Relay-Assisted Vertical FSO Transmission system
Mr. Young-Jin Hyun[1], Mr. Jae-Young Choi[1], Prof. Sang-Kook Han[1]
[1]Yonsei University

12:20 Using observational data of double stars to assess the feasibility of Tip Tilt retrieval on the downlink signal for uplink pre-compensation in free space optical communications.
Ms. Monique Cockram[1], Dr Noelia Martinez Rey[1], Ms Adelaide Gilling, Mr Geoffrey McNamara
[1]Australian National University

Session 11a: SPECTROMETER-4 INSTRUMENT SUBSYSTEMS

14:00 Spectropolarimeters optical design for the Arago space mission project
Dr. Eduard Muslimov[1,2], Dr Coralie Neiner[3], Mr Ilian Ellafi[3,4]
[1]NOVA Optical IR Instrumentation Group at ASTRON, [2]Aix Marseille Univ, CNRS, CNES, LAM , [3]LESIA, Observatoire de Paris , [4]Paris-Saclay University

14:20 SPEXone, the multi-angle spectropolarimeter for PACE, adjusted and improved for new space applications.
Dr. Ruud Hoogeveen[1], Dr. Ralf Kohlhaas[1], Dr. Jochen Campo[1], Dr. Jeroen Rietjens[1], Alexander Eigenraam[1], Dr. Ian Veenendaal[1], Dr. Marijn Siemons[1], Joris Van der Vlugt[1], Mr. Jelle Talsma[1], Dr. Jos Dingjan[2], Guus Borst[2], Dr. Raj Nalla[2], Dr. Jeroen Peters[2], Dr. Jochen Landgraf[1]
[1]SRON Netherlands Institute for Space Research, [2]Airbus Defence and Space Netherlands

14:40 Imaging static Fourier transform spectrometry : impact of trajectory perturbations on the hyperspectral images.
Ms. Varvara Chiliaeva[1], Olivier Gazzano[2], Yann Ferrec[2], Hervé Sauer[1], Jean-Michel Gaucel[3], Rodolphe Krawczyk[3], Andrés Almansa[4], François Goudail[1]
[1]Institut D'optique Graduate School, [2]ONERA, [3]Thales Alenia Space, [4]Université Paris Descartes

15:00 Copernicus CO2M: status of the mission for monitoring anthropogenic carbon dioxide from space
Mr. Yannig Durand[1], Mr Grégory Bazalgette Courrèges-Lacoste[1], Ms Charlotte Pachot[1], Mr Arnaud Pasquet[1], Ms Valérie Fernandez[1], Mr Stefan Lesschaeve[2], Mr. David Spilling[3], Mr. Antoine Dussaux[4], Mr Denis Serre[4], Mr. Frank te Hennepe[5]
[1]Esa, [2]OIP Sensor Systems, [3]Thales Alenia Space, [4]Thales Alenia Space, [5]OHB System

Session 11b: DIGITAL PHOTONICS

14:00 Optical interconnect evaluation process for Thales Alenia Space latest generation of Digital Transparent Processor, DTP6G, and a projection into future needs
Mrs Lynda CYRILLE[1], Mr Norbert VENET[1], Mrs Céline VO VAN[1], Mr Cédric NICOLAS[1], Arnaud DUPUY[1], Dr Vivien ENJOLRAS[1]
[1]Thales Alenia Space

14:20 High-speed optical transceiver integrated chipset and module for on-board VCSEL-based satellite optical interconnects
Dr. Ilias Sourikopoulos[1], Dr. Pylyp Ostrovskyy[2], Dr. Klaus Tittelbach-Helmrich[2], Dr. Goran Panic[2], Dr. Gunter Fischer[2], Mr. Shaun Jones[3], Mr. Paul Kushner[3], Dr. Yohann Franz[3], Ms. Una Marvet[3], Mr. David Poudereux[4], Mr. Miguel Bodega[4], Dr. Aintzane Lujambio[4], Dr. Juan Barbero[4], Dr. Leontios Stampoulidis[1]
[1]LEO Space Photonics, [2]IHP - Leibniz-Institut für innovative Mikroelektronik, [3]ALTER TECHNOLOGY UK, [4]ALTER TECHNOLOGY

14:40 Optoelectronics parts NewSpace qualification aboard FOLC2 optical modem mission.
Mrs. Anna Salomon[1], Mr Louis Bouet[1], Mr Stephane Mariojouls[1], Mr Clement Guyot[2], Mr Joël Tchahame[2], Mr Stephane Ustaze[3], Mr Arnaud Laurent[3], Mr Raphael Cousty[4], Dr. Charlotte Bringer, Mr Thomas Schmitt[4], Olivier Gilard
[1]Airbus Defence And Space, [2]iXblue Photonics, [3]iXblue Photonics, [4]Cilas

15:00 Electro-absorption modulated laser for analog and digital satellite payload applications
Dr. Mickael Faugeron[1], Dr. Anaëlle Maho[1], M. Philippe Armet[1], M. Mathieu Picq[1], M. Bernard Charrat[1], Dr. Benoit Benazet[1], Dr. Michel Sotom[1]
[1]Thales Alenia Space

Session 11c: METROLOGY-4 LASER & LIDAR METROLOGY

14:00 Molecular contamination testing with continuous-wave laser radiation at 1064 nm: de-risking activity for the LISA space mission
Dr Nils Bartels[1], Franz Hadinger[1], Gabriele Taube[1], Wolfgang Riede[1], Dr Christian Dahl[2], Dr Kai-Cristian Voss[2], Dr Alessandra Ciapponi[3], Ricardo Martins[3], Dr Linda Mondin[3]
[1]Deutsches Zentrum für Luft- und Raumfahrt (DLR), [2]SpaceTech GmbH, [3]European Space Agency (ESA), ESTEC

14:20 Verification of straylight rejection of optical science payloads using a pulsed laser source
Dr. Christophe Pache[1], Dr. Thomas Weigel[2], Mr. Antoine Ummel[1], Dr. Dana Tomuta[3], Mr. Micael Miranda[4], Dr. Kate Isaak[3], Dr. Dominic Doyle[3], Mr. Fabien Droz[1], Dr. Jean-Christophe Roulet
[1]CSEM, [2]Thales Alenia Space Schweiz AG, [3]ESA/ESTEC, [4]ATG Europe BV

14:40 Development and test of a broadband absolute frequency reference with sub-MHz precision based on a GHz mode locked laser source
Dr. Dirk Heinecke[1], Lukas Nagy[1], Dr. David Fehrenbacher[1], Dr. Myriam Raybaut[2], Dr. Jean-Baptiste Dherbecourt[2], Dr. Florian Emaury[3], Dr. Benjamin Rudin[3], Dr. Hanjo Schaefer[1]
[1]SpaceTech GmbH, [2]ONERA - DMPH, [3]Menhir Photonics AG

15:00 A highly stable optical bench system for the NASA-DLR BECCAL mission
Mr. Jean Pierre Marburger[1], Dr. André Wenzlawski[1], Esther del Pino Rosendo[1], Faruk Sellami[1], Dr. Ortwin Hellmig[2], Dr. Victoria Henderson[3], Dr. Tim Kroh[3], Marvin Warner[4], Prof. Dr. Patrick Windpassinger[1], BECCAL Team[1,2,3,4,5,6,7,8,9,10,11,12]
[1]Johannes Gutenberg University Mainz (JGU) | Institute for Physics, [2]University of Hamburg | Institute of Laserphysics (UHH ILP), [3]Humboldt University of Berlin (HUB) | Department of Physics, [4]The Center of Applied Space Technology and Microgravity (ZARM), [5]Leibniz University Hannover (LUH) | Institute of Quantum Optics, [6]Ferdinand-Braun-Institut, Leibniz-Institut für Höchstfrequenztechnik (FBH), [7]University of Ulm | Institut für Quantenoptik, [8]Leibniz University Hannover (LUH) | Institute of Microelectronic Systems, [9]German Aerospace Center | Institute for Software Technology (DLR-SC), [10]German Aerospace Center | Institute for Satellite Geodesy and Inertial Sensing (DLR-SI), [11]German Aerospace Center | Institute of Quantum Technologies (DLR-QT), [12]OHB SE

Session 11d: OPTICAL COMMS-11 ATMOSHPERIC PROPAGATION

14:00 10 Gbps free space optical communication link using Multi-Plane Light Conversion turbulence mitigation
Dr. Antonin Billaud[1], Dr. Adeline Orieux[1], Dr. Fausto Gomez[1], Dr. Thibault Michel[1], Mr. Stephane Bernard[1], Dr. David Allioux[1], Dr. Olivier Pinel[1]
[1]Cailabs

14:20 Design and validation of a new coding and synchronization layer for space optical communications
Ms. Geraldine Artaud[1], Mr. Jean-Frederic Chouteau[2], Mr. Lyonel Barthe[2], Mr. Benjamin Gadat[2], Mr. Thomas Anfray[2], Mr. Sylvain Poulenard[2], Mr. Alain Dominique Thomas[3], Mr. Alain Quentel[3]
[1]CNES, [2]ADS - Airbus Defence and Space, [3]SDS – Safran Data Systems

14:40 Latency-Constrained Fading Mitigation for Coherent Optical Feeder Links based on Space-Time-Frequency Coding
Dr. C. Willem Korevaar[1], Dr. Rudolf Saathof[2], MSc. Tara van Abkoude[1], Prof. Niek J. Doelman[1]
[1]Netherlands Organisation for Applied Research TNO, [2]Technical University of Delft

Session 12a: SPECTROMETER-5 Calibration & Testing

15:50 SPEXone multi-angle spectropolarimeter characterization, calibration, and key data derivation using the L0-1B processor
Dr. Jeroen Rietjens[1], Dr. Martijn Smit[1], Dr. Jochen Campo[1], Thomas Bouchan[1], Dr. Ryan Cooney[1], Dr. Pierre Piron[1], Dr. Paul Tol[1], Dr. Raul Laasner[1], Dr. Richard van Hees[1], Dr. Jochen Landgraf[1], Dr. Otto Hasekamp[1]
[1]SRON Netherlands Institute for Space Research

16:10 Results of MAJIS integration and optical alignment
Mr. Giuseppe Pilato[1]
[1]Leonardo Spa

16:30 Pre-flight Calibration and Characterization of the EnMAP Sensor
Dr. Simon Baur[1], Dr. Martin Mücke[1], Bernhard Sang[1], Dr. Richard Wachter[1], Dr. Matthias Lettner[1], Hans-Peter Honold[1], Dr. Manuela Sornig[2], Dr. Sebastian Fischer[2]
[1]OHB System AG, [2]Space Administration, German Aerospace Center (DLR)

Session 12b: ANALOG PHOTONICS

15:50 Photonic Integration & Integrated Microwave Photonics Technologies for Satellite Applications
Dr. Hakimeh Mohammadhosseini[1], Stephan Roemer[1]
[1]Antwerp Space

16:10 Novel multi-channel photonic RF frequency converters for telecom satellite payload applications
Mr. Benoit Benazet[1], Mr Mickael Faugeron[1], Ms Muriel Aveline[1], Mr Thomas Colombo[1], Mr Bernard Charrat[1], Mr Michel Sotom[1]
[1]Thales Alenia Space

16:30 High Stability LO Generation by Injection-Locking of Hybrid Integrated Dual InP-Si3N4 Laser Source for Satellite Payloads in Ka-, Q-, V- band.
Mr. Alberto Zarzuelo[1], Mrs. Jessica Cesar[1], Mrs. Charoula Mitsolidou[2], Mr. Luis Gonzalez[1], Mr. Roelof Bernardus Timens[2], Mr. Victor Sanchez-Martinez[3], Mr. Peter D. H. Maat[2], Mr. Paulus W. L. van Dijk[2], Mr. Chris G. H. Roeloffzen[2], Mr. Guillermo Carpintero[1]
[1]Universidad Carlos III De Madrid, [2]LioniX International BV, [3]SENER Aeroespacial S.A.

16:50 Microwave Photonic filter with reconfigurable bandwidth and tunable central frequency aimed for flexible satellite payloads in Ka-, Q-, V- band.
Dr. Charoula Mitsolidou[1], Dr. Roelof Bernardus Timens[1], Dr. Víctor Sánchez-Martínez[2], Dr. Alberto Zarzuelo[3], Dr. Guillermo Carpintero[3], Dr. Peter Maat[1], Dr. Paulus van Dijk[1], Dr. Chris Roeloffzen[1]
[1]Lionix International, [2]SENER Aeroespacial S.A., [3]Universidad Carlos III de Madrid

17:10 Ka- and lower Q-band, high responsivity, packaged RF Photodiode
Dr. Hektor Meier[1], Dr. Wei Quan[1], Dr. Sho Watanabe[1], Dr. Christophe Petit[1]
[1]Albis Optoelectronics AG

Session 12c: PASSIVE OPTICAL COMPONENTS-4 COATINGS

15:50 High performances optical coatings for Earth observation and Climate monitoring
Dr. Hélène Krol[1], Nathalie Valette[1], Colin Bondet de la Bernardie[1], Caroline Porta[1], Eymeline Crocfer[1], Corentin Le Tallec[1], Grégory Chauveau[1], Dr. Didier Torricini[1], Dr. Catherine Grèzes-Besset[1]
[1]Cilas

16:10 Complex LWIR optical coatings up to 20um (and beyond…)
Mr. David Harrison[1]
[1]Materion Balzers Optics

16:30 Manufacturing of monolithic and butcher block filter arrays for earth observation applications
Dr. Thomas Weber[1], Dr. Marc Lappschies[1], Dr. Thorsten Best[1], Dr. Stefan Jakobs[1], David Harrison[2], George Allen[2], Kevin Downing[2]
[1]Materion Balzers Optics - Optics Balzers Jena GmbH, [2]Materion Balzers Optics - Materion Precision Optics & Thin Film Coatings Inc.

16:50 Comparison of monochromatic and broadband monitoring of optical interference filters
Mr Janis Zideluns[1], Dr Fabien Lemarchand[1], Mr Detlef Arhilger[2], Dr Harro Hagedorn[2], Dr. Julien Lumeau[1]
[1]Institut Fresnel, [2]Bühler Leybold Optics

Session 12d: OPTICAL COMMS-12 ATMOSHPERIC PROPAGATION

15:50 Machine Learning-Based Adaptive Optics for Free-Space Optical Communication: a Training Data Generation Study
Mr. Vinicius Ferreira Nery[1], Dr. Shinichi Nakasuka[1]
[1]The University of Tokyo

16:10 ALASCA: the ESA Laser Guide Star Adaptive Optics Optical Feeder Link demonstrator Facility
Dr. Roberto Biasi[1], Dr. Roberto Biasi[2], Dr. Noelia Martinez Rey[3], Dr. David Jenkins[1], Dr. Ollie Farley[4], Dr. Martin Enderlein[5], Dr. Petr Janout[1], Mr Mauro Centrone[6], Dr. Hira Virdee[7], Dr. Matthew Townson[4], Mr. Marco Faccini[6], Dr. Marcos Reyes[8], Dr. Enrico Pinna[6], Dr. James Osborn[4], Dr. Guido Agapito[6], Dr. Daniele Gallieni[9], Dr. Laura Salvi[2], Dr. David Gooding[7]
[1]European Southern Observatory, [2]Microgate S.r.l., [3]Australian National University, [4]Durham University, [5]TOPTICA Projects, [6]Istituto Nazionale di AstroFisica, [7]Lumi Space, [8]Istituto de Astrofisica de Canarias, [9]A.D.S. International S.r.l.

16:30 Extending Atmospheric Propagation Time Series of Satellites Optical Feeder-Link Channel
Dr. Tarik Benaddi[1], Dr. Lucien Canuet[2]
[1]Thales Alenia Space, [2]European Space Agency

16:50 Forecasting of turbulence impact on optical link from geostationary satellite
Mr. Emile Klotz[1], Dr Sidonie Lefebvre[1], Dr Nicolas Vedrenne[1], Dr Christian Musso[1], Dr Thierry Fusco[1], Dr Sylvain Poulenard[2], Mr Laurent Coret[2], Mr Alexis Louis[2]
[1]ONERA, [2]Airbus Defence and Space

Friday, 7 October 2022

Session 13a: SPECTROMETER-6 CALIBRATION STRAY LIGHT

09:10 Efficient stray light characterisation: a white light interferometry based method
Dr. Ralph Snel[1], Bart Speet[1], Niels Dijkhuizen[1], Gerard Otter[1], Geert Slegtenhorst[1], Micael Miranda[2], Volker Kirschner[3]
[1]TNO, [2]ATG Europe BV, [3]European Space Agency

09:30 Impact and correction of straylight in Michelson-based Fourier transform spectrometers
Dr. Pierre Dussarrat[1], Guillaume Deschamps[1], Dr Sahar Dehnavi[2], Dr Bertand Theodore[1], Dr Dorothee Coppens[1]
[1]EUMETSAT, [2]HE Space Operations GmBH

09:50 Stray light analysis of Compact Gas Imager
Dr. Vitalii Khodnevych[1], Denis Simeoni[1]
[1]IRT Saint Exupery

10:10 In-lab characterization of HYPSOS, a novel stereo hyperspectral observing system: first results
Prof. Giampiero Naletto, Dr. Livio Agostini, Dr. Gabriele Cremonese, Dr. Igor Dorgnach, Dr. Chiara Doria, Dr. Matteo Faccioni, Dr. Riccardo La Grassa, Dr. Francesco Lazzarotto, Luigi Lessio, Dr. Andrea Meneguzzo, Dr. Cristina Re, Dr. Massimiliano Tordi, Prof. Carlo Bettanini, Dr. Fabrizio Capaccioni, Prof. Stefano Debei, Dr. Ennio Giovine, Prof. Lucia Marinangeli, Dr. Francesco Mattioli, Prof. Maria Teresa Melis, Prof. Pasquale Palumbo, Prof. Marco Pertile, Dr. Amedeo Petrella, Dr. Anna Chiara Tangari, Dr. Michele Zusi
[1]University of Padova

Session 13b: SCIENTIFIC & FOCAL PLANE INSTRUMENTATION

09:10 The Rotating Mirror Assembly (RMA) onboard the Comet Interceptor Mission: design, breadboard activities and development plan.
Mr. Jean-Yves Plesseria[1], Mr. Jérôme Jacobs[1], Mr. Etienne Lallemand[1], Mr. Pierre Franco[1], Mr. Bao Long Levan[1], Mrs. Alexandra Mazzoli[1], Dr. Patrick Gailly[1], Mrs. Laurence Rossi[1]
[1]Centre Spatial De Liège (University of Liège, STAR Institute)

09:30 CLARO: Coronal Lyman-Alpha Resonance Observatory for the ISS - Optical Design and Focal-Plane Polarimeter
Dr. Silvano Fineschi[1], Dr. Roberto Casini[2], Dr. Sarah Gibson[2], Dr. Jeffrey Newmark[3], Dr. Frederic Auchere[3], Dr. Juan I. Larruquert[5], Nour Eddine Raouafi[6]
[1]INAF Astrophysical Observatory Of Torino, [2]NCAR - High Altitude Observatory, [3]NASA - Goddard Space Flight Center, [4]CNRS - Institute d'Astrophysique Spatiale, [5]CSIC - Instituto de Óptica, [6]John Hopkins University - Applied Physics Lab

09:50 Flare Sentinel - A Compact Integral Field Spectrograph for Observations of Solar Flares from Space
Dr. Haosheng Lin[1], Mr Morgan Bonnet[1], Mr Takeshi Sukegawa[2]
[1]Institute For Astronomy, University Of Hawaii, [2]Canon Inc.

10:10 Report on a refractive static Fourier transform spectrometer flown on a stratospheric balloon for the HEMERA program
Dr. Fabio Frassetto[1], Dr. Lorenzo Cocola[1], Dr. Riccardo Claudi[2], Dr. Vania Da Deppo[1], Dr. Paola Zuppella[1], Dr. Luca Poletto[1]
[1]CNR-IFN Padova, [2]Astronomical Observatory, INAF

Session 13c: PASSIVE OPTICAL COMPONENTS-5 COATINGS

09:10 Laser-induced thermal effects in optical interference coatings
Mr. Paul Rouquette[1,2], Pr. Claude Amra[1], Dr. Myriam Zerrad[1], Dr. Catherine Grèzes-Besset[2], Dr. Hélène Krol[2], Dr. Karine Mathieu[3]
[1]Aix Marseille Univ, CNRS, Centrale Marseille, Institut Fresnel, [2]CILAS, [3]CNES

09:30 Coated black aperture with an anti-reflective clear aperture – developed and qualified for space-based applications
Dr. Stefan Schwinde[1], Dr. Peter Munzert[1], Svetlana Shestaeva[1], Dr. Robert Leitel[1], Sylke Kleinle[1], Dr. Sven Schröder[1]
[1]Fraunhofer IOF

09:50 Multilayer coating analysis for heat rejection on the Slit Assembly of Solar-C EUVST
Mr. Gabriele Zeni[1,2], Dr. Alain Jody Corso[2], Dr. Lorenzo Cocola[2], Dr. Ennio Giovine[4], Dr. Francesco Mattioli[4], Prof. Giampiero Naletto[3,5], Dr. Vincenzo Andretta[6], Dr. Luca Poletto[2]
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10:10 Ultra-hydrophobic optical coatings as a means to lower outgassing
Ms. Dina Katsir[1], Ms. Irene Katsnelson[1]
[1]Acktar

Session 13d: OPTICAL COMMS-13 ATMOSPHERIC PROPAGATION

09:10 Preliminary DIMM-Based Analysis of Atmospheric Turbulence by Using Optical Data Relay Satellite "LUCAS"
Dr. Yuma Abe[1], Mr. Hideaki Kotake[1], Dr. Yoshihiko Saito[1], Dr. Dimitar Kolev[1], Mr. Yasuhiro Takahashi[1], Dr. Takuya Okura[1], Dr. Tetsuharu Fuse[1], Mr. Yohei Sato[2], Mr. Takamasa Itahashi[2], Dr. Shiro Yamakawa[2], Dr. Morio Toyoshima[1]
[1]National Institute of Information and Communications Technology (NICT), [2]Japan Aerospace Exploration Agency (JAXA)

09:30 Impact of atmospheric refraction on free-space optical communications pointing
Dr. Bouchra Benammar[1], Ms Géraldine Artaud[1]
[1]Cnes

09:50 Turbulence distribution characterization with a high-resolution Shadow Band Ranger for Free Space Optical Communications applications
Dr. Maxime Lamotte[1], M Frédéric Jabet[1]
[1]Miratlas Sas

10:10 Challenges for Optical Turbulence Characterization and Prediction at Optical Communication Sites
Mr. Florian Quatresooz[1], Dr. Gilles Orban de Xivry[2], Dr. Olivier Absil[2], Prof. Danielle Vanhoenacker-Janvier[1], Prof. Claude Oestges[1]
[1]ICTEAM Institute, Université catholique de Louvain (UCLouvain), [2]Space sciences, Technologies, and Astrophysics Research (STAR) Institute, Université de Liège (ULiège)