

Monday 20 January 2020		
	Hall: Kaleva SPACE	Hall: Lumituuli EO
	Registration	
9:00	Opening and Plenay	
10:00		
11:00	Missions I Chair: Jaan Praks	Climate Change I Chair: Kari Luojus
12:00	Lunch	
13:00	Missions II Chair: Heikki Saari	Climate Change II Chair: Johanna Tamminen
14:00	Coffee	
15:00	Space Policy Chair: Minna Palmroth	GNSS Chair: Anna Jensen
16:00		
17:00	Poster & Cocktail Hall: Sief	
19:00	Sauna	

Tuesday 21 January 2020		
	Hall: Kaleva SPACE	Hall: Lumituuli EO
	Registration	
9:00	Science Instruments Chair: Philipp Oleynik	New Space Chair: Janne Kuhno
10:00	Coffee	
11:00	CubeSat Missions I Chair: Emilia Kilpua	EO for regulations and monitoring Chair: Sampsa Koponen
12:00	Lunch	
13:00	CubeSat Missions II Chair: Pekka Janhunen	Space Solutions for Business Chair: Miranda Saarentaus
14:00	Coffee	
15:00	Future technologies Chair: Andris Slavinskis	Forest Chair: Matti Möttöus
16:00		
17:00	Poster & Cocktail Hall: Sief	
19:00	Sauna	

Wednesday 22 January 2020		
	Hall: Kaleva SPACE	Hall: Lumituuli EO
	Registration	
9:00	CubeSat Missions III Chair: Rizwan Muhammad Mughal	SAR Applications Chair: Penelope Kourkouli
10:00	Coffee	
11:00	SATCom technologies and 5G I Chair: Risto Wichman	Climate Chair: Anu-Maija Sundström
12:00	Lunch	
13:00	SATCom technologies and 5G II Chair: Marko Höyhty	EO Data I Chair: Mikko Stralendorff
14:00	Coffee	
15:00	SATCom technologies and 5G III Chair: Jussi Säily	EO Data II Chair: Heidi Kuusniemi
16:00		
17:00	Wrapping up	
19:00		

Monday 20 January 2020							
Time	Topic	Speaker	Organization	Time	Topic	Speaker	Organization
09:00	Registration opens			09:00	Registration opens		
Hall: Kaleva, Dipoli				Hall: Palaver, Dipoli			
Opening and Plenay							
09:30	Opening words	Jaan Praks					
09:40	ESA Copernicus 2.0 Satellite Missions	Simon Jutz (TBC)	ESA				
10:00	Copernicus CO2 Mission	Yasjka Meijer	ESA				
Missions I Chair: Jaan Praks				Climate Change I Chair: Kari Luojus			
10:40	SPICA satellite - opportunities for Finnish astronomy and industry	Mika Juvela	(1) University of Helsinki	10:40	Observed Long Term Changes in Terrestrial Snow Cover from the ESA Sentinel-3	Kari Luojus	Finnish Meteorological Institute
11:00	HERA and the Asteroid Prospection Explorer CubeSat	Antti Näsilä	VTT Technical Research Centre	11:00	Enhanced melt of the Arctic cryosphere observed through surface albedo	Aku Riihelä	FMI
11:20	Comet Interceptor - An ESA mission to an ancient world	Tomáš Kohout	University of Helsinki	11:20	Detection of air pollutants and man-made carbon dioxide emission sources from space	Iolanda Ialongo	Finnish Meteorological Institute
11:40	Qualification the UV Fabry-Perot Interferometer Assembly for the ALTIU	Heikki Saari	VTT Microspectrometry	11:40	ESA Sea Ice CCI+ - towards a 26 year time series of sea ice thickness from satellite	Eero Rinne	Finnish Meteorological Institute
12:00	Lunch			12:00	Lunch		
Missions II Chair: Heikki Saari				Climate Change II Chair: Johanna Tamminen			
13:00	CME NEWS – a LEO constellation for Space Weather	Juhani Huovelin	ISAWARE, FMI, React	13:00	Copernicus Global Land Snow Cover Extent service for Northern Hemisphere	Sari Metsämäki	Finnish Environment Institute
13:20	NorSat-TD A Microsatellite Technology Demonstrator	Tyler Jones	Norwegian Space Agency	13:20	Coastal downstream service for the Baltic Sea landfast ice extent and thickness	Marko Mäkyinen	Finnish Meteorological Institute
13:40	Sunstorm - Safeguarding the connected world	Janne Kuhno	University of Helsinki	13:40	Satellite observation unveils the role of forest in regulating energy flux and carbon storage	Temesgen Abera	University of Helsinki
14:00	Design overview and functional test plan for Foresail-1 Cubesat	Muhammad Rizwan	Aalto University	14:00			
14:20	Coffee break			14:20	Coffee break		
Space Policy Chair: Minna Palmroth				GNSS Chair: Anna Jensen			
15:00	Finnish Space Administration	Maija Lönnqvist	Ministry of Economic Affairs	15:00	High-accuracy real-time positioning and timing onboard LEO satellites for Earth observation	Tor Melgard	Fugro Norway AS
15:20	Finnish Space Funding	Kimmo Kanto	Business Finland	15:20	GNSS Related Threats to Power Grid Applications	Heidi Kuusniemi	(1) University of Helsinki
15:40	Estonian Space Policy and Program 2020-2027	Paul Liias	Ministry of Economic Affairs	15:40	Resilient Timing to Critical Infrastructure Using Navigation Satellites: The Galileo Example	Martti Kirkko-Jaakkola	Finnish Geospatial Research Centre
16:00	Questions and answers			16:00	Role of GNSS in Enabling Autonomous Driving at the Aurora Snowbox Event	Sarang Thombre	Finnish Geospatial Research Centre
16:20							
Hall: Sief				Hall: Sief			
16:40 Poster & Cocktail				16:40 Poster & Cocktail			
	Modeling Land Use and Land Cover Change Dynamics as a result of Iron Age deforestation	Gitau	Taita Taveta University		Aurora Resitojet One (ARO) Plume Analysis	Swati Chandran	Aurora Propulsion Technologies
	Satellite-observed soil freeze as proxy for the end of the vegetation active season	Kristin Böttcher	SYKE, FMI, FMI, UHEL		Artificial intelligence for forest variable estimation in Finnish boreal forest	Eelis Halme	VTT Technical Research Centre
	SMALL SATELLITES DEVELOPMENT AS PRIORITY SPACE OPTIONS FOR EMERGING COUNTRIES	Ngongwa Maurice	Global Centre for Commercial Space		Computationally efficient radiative transfer emulator for satellite remote sensing	Antti Kukkurainen	Finnish Meteorological Institute
	SMALL SATELLITES AS COST EFFECTIVE SOLUTIONS FOR EMERGING COUNTRIES	Eyifi Alice Sembe	Global Centre for Commercial Space		Deployable Nose Cone for CubeSats to Extend Mission Lifetime in Low Earth Orbit	Ilkka Heikkinen	Aalto University
	IAA-GLOCECOHADIM-AFRICA LION SAT1: Prospects and benefit for Africa	Tomukum Chia	International Academy of Astronautics		Spectral transmittance characteristics of boreal and temperate forest canopies	Aarne Hovi	Aalto University
	Mechanical and Thermal Design of Nanospacecraft for a Main-Belt Voyager	Iaroslav Iakubivskiy	Tartu Observatory		APEX Visual Navigation	Olli Knuuttila	Aalto University, FMI, (1)
	Analytic Hierarchy Process for Selecting a Launch Opportunity	Andrew Paliwoda	Responsive Access		Electron precipitation from Van Allen radiation belts	Emilia Kilpua	University of Helsinki
	The Challenge of Batch CubeSat Testing and Qualification	Andrew Paliwoda	Responsive Access		On Atmospheric Radiative Transfer simulator development for Earth Observation	Antti Mikkonen	Finnish Meteorological Institute
	Machine learning and time-series based approach for filling large-area gaps in satellite data	Zhipeng Tang	University of Helsinki		DronePilot – Utilizing drones to support icebreaker operations in the Baltic Sea	Robin Berglund	VTT Technical Research Centre
	Wind damage risk maps for large forested areas: can ALS data help?	Ranjith Gopalakrishnan	University of Eastern Finland		An alternative communications approach for deep space missions	Janis Dalbins	University of Tartu, Tallinn
	Kino-Dynamic Algorithms for satellite maneuvering around small bodies	Aditya Savio Paul	University of Tartu		MiniPINS - Miniature Planetary In-situ Sensors	Maria Hieta	(1)Finnish Meteorological Institute
	A case study in sustainable urban planning and remote sensing	Antti Kinnunen	University of Vaasa		Space Imaging Simulator for Proximity Operations	Gabriel J. Schwarzkopf	Department of Electronics
	KvarkenSpaceEco & Kvarken Ground Station Implementation	KANNAN SELVAN	University of Vaasa		Plasma Brake Experiment onboard FORESAIL-1	petri toivanen	Finnish Meteorological Institute
	CubeSat deorbiting calculations by Coulomb drag and air drag	Pyy Peitso	Aurora Propulsion Technologies		Automatic detection of Aspen trees (Populus tremula) using Unmanned Aerial Vehicles	Timo Kumpula	University of Eastern Finland
19:00	Sauna						

Tuesday 21 January 2020								
Time	Topic	Speaker	Organization	Time	Topic	Speaker	Organization	
08:30	Registration opens			08:30	Registration opens			
	Hall: Kaleva /dipoli				Hall: Lumituuli, Dipoli			
	Science Instruments				New Space			
	Chair: Philipp Oleynik				Chair: Janne Kuhno			
09:00	Advanced Telescope for High Energy Astrophysics, Athena	Seppo Korpela	University of Helsinki, VT	09:00	Space situational awareness	Nestori Fabritius	DA Group	
09:20	Optical Periscopic Imager for Comets (OPIC) for Comet Interceptor ESA	Mihkel Pajusalu	Tartu Observatory, Unive	09:20	Open Cosmos Academy Ambassador and SGAC	Hamad Siddiqi	The Arctic University of N	
09:40	Spectrum Monitoring and Signal Analysis Sensor for Small Satellites	Juha Kainulainen	Harp Technologies Oy	09:40	New space technology for solving global challenges	Tuomas Tikka	Reaktor Space Lab	
10:00	BepiColombo / SIXS – the first year in space	Rami Vainio	[1] University of Turku, F	10:00	CubeSats Capabilities for Earth Observation Missions	Agne Paskeviciute	ISIS - Innovative Solution	
10:20	Coffee			10:20	Coffee			
	CubeSat Missions I				EO for regulations and monitoring			
	Chair: Emilia Kilpua				Chair: Sampsa Koponen			
11:00	Project APTAS - The Arctic Student CubeSat	Theresia Hestad	Luleå University of Techn	11:00	Use of EO for environmental monitoring – Needs and perspectives from	P. Liljaniemi	Finnish Ministry of Environ	
11:20	Boost your satellite mission with data compression	Benjamin Fischer	Arctic Space Technolog	11:20	Use of Remote Sensing data for the public services in Estonia.	Anu Reinart	1) University of Tartu, 2)	
11:40	Status and Updates on the 3U CubeSat "MIST"	Theodor-Adrian St	KTH Royal Insitute of Tec	11:40	Provision of EO data for Water Framework Directive monitoring.	Jenni Attila	Finnish Environment Inst	
12:00	Aalto-3 – The Current Status of the Open Source Student Satellite	Alexandros Binios	Aalto University	12:00	Land Cover Monitoring by CLMS and SYKE - products and uses	Markus Törmä	Finnish Environment Inst	
12:20	Lunch			12:20	Lunch			
	CubeSat Missions II				Space Solutions for Business			
	Chair: Pekka Janhunen				Chair: Miranda Saarentaus			
13:20	Suomi 100 space weather cubesat: the 1st year	Esa Kallio	(1) Aalto University, Scho	13:20	ESA Space Solutions	Tony Sephton	European Space Agency	
13:35	Aalto-1 mission status and future prospects	Jaan Praks	Aalto University, Depart	13:45	AI - opportunities for space	tbj	Fourkind Oy	
13:50	TaiTech satellite project: Dawn and Dusk satellites	Rauno Gordon	Tallinn University of Tech	14:00	Space Data as a Service	Joni Norppa	Terramonitor Oy	
14:05	ESTCube-2: CubeSat platform and full AOCS in one unit	Janis Dalbins	Tartu Observatory, Unive	14:15	Driving operational forest management based on dynamic data	Seppo Huurinaier	Wuudis Solutions Oy	
14:20	Origami Membrane Deployable Structures Integrated with Thin-Film Ele	Hiraku Sakamoto	Tokyo Institute of Techn	14:30	Tactical Ice Navigation Tool	Jukka Salminen	Aker Arctic Technology C	
14:45	Coffee			14:45	Coffee			
	Future technologies				Forest			
	Chair: Andris Slavinskis				Chair: Matti Möttus			
15:20	Large commercial space settlements are feasible	Pekka Janhunen	Finnish Meteorological In	15:20	Forestry-TEP reaches global	Tuomas Häme	VTT Technical Research	
15:40	North Star mission concept	Perttu Yli-Opas	Aurora Propulsion	15:40	Burning Arctic - Satellite-Based Analysis of Forest Fires and Transport	Anu-Maija Sundstr	Finnish Meteorological In	
16:00	Cubesats getting ready for advanced missions	Tor-Arne Grönlund	GomSpace	16:00	The use of terrestrial LiDAR to investigate the effects of fragmentation	Matheus Nunes	1. Department of Geosci	
16:20	Icarus: Recording the Disruption of a Near-Sun Asteroid	Tuomas lehtinen	University of Helsinki, Fin	16:20	Where are the aspen? Detection of keystone tree species of boreal forest	Janne Mäyrä	Finnish Environment Inst	
	Hall: Sief				Hall: Sief			
17:00	Poster & Cocktail			17:00	Poster & Cocktail			
	Finnish Multijunction Space Solar Cells Boosted by Dilute Nitride Subj	Arto Aho	Tampere University / Op		Crop Yield Statistics from Sentinel-2	Maria Yli-Heikkilä	Natural Resources Institu	
	Radiation Effects Research in Finland	Arto Javanainen	University of Jyväskylä		Intelligent Earth monitoring using Copernicus program satellites and im	Paweł Kisielewicz	Cracow University of Tec	
	A simulation model to estimate the responsiveness of an Earth observin	Verneri Lauksio	None / Aalto University (T		Aalto-3 – Software Design for the Software-Defined Radio	Verneri Hirvonen	Aalto University	
	Surface of Mercury with MIXS and SIMBIO-SYS instruments on board th	Antti Penttilä	Department of Physics, U		Role of spatial and spectral resolutions in forest remote sensing	Matti Möttus	1) VTT Technical Resear	
	THE COPERNICUS GLOBAL LAND SERVICE LAKE ICE EXTENT PROD	Kirsikka Heinilä	1)Finnish Environment In		Role of spatial and spectral resolutions in forest remote sensing	Matti Möttus	1) VTT Technical Resear	
	Multi-angular reflectance properties of single trees	Petri Forsström	Aalto University, Universi		Forest Carbon Flux and Storage Mapping Service	Ville-Valtteri Kettur	Aalto University	
	Improving the interoperability of seasonal algae color products derived from c	Sakari Väkevä	Finnish Environment Inst		Aalto-3 – The Telemetry, Tracking and Command Subsystem	Juha Biström	Aalto University	
	Physically-based interpretation of meteor phenomena	Maria Gritsevich	Finnish Geospatial Resea		Sodankylä Geophysical Observatory – Monitoring Space Weather on th	Thomas Ulich	Sodankylä Geophysical C	
	Remote sensing of greenhouse gases at Sodankylä, Finland	Rigel Kivi	(1) Finnish Meteorologica		Intelligent Earth monitoring using Copernicus program satellites and im	Paweł Kisielewicz	Cracow University of Tec	
	Deployment mechanism for plasma brake microtether	Joel Tolonen	Aalto University		APEX Visual Navigation	Olli Knuuttila	Aalto University, FMI, OH	
	Relationships linking satellite-retrieved ocean color data with atmosphe	Marjan Marbouti	1 Institute for Atmospher		Exploring methods for snow mass retrieval from Earth Observation	Juha Lemmetyinen	Finnish METeorological In	
	Machine learning methods for environmental damage assessment from	Bogdan Iancu	Åbo Akademi University		Sky Pollution by Large-Scale Satellite Constellations as a Problem of Int	Stefan Kirchner	University of Lapland, An	
	Project ASTER - Attitude STabilized free falling Experiment	Noel Janes	Luleå University of Techn		REDDCopernicus - Capacity for Copernicus REDD+ and Forest Monitor	Jukka Miettinen	VTT Technical Research	
	UCAnFly	Andrea	University of Cadiz		Optical signals of Photosynthesis	Jon Atherton	Optics of Photosynthesis	
	Comparison of TROPOMI/Sentinel-5 Precursor NO2 observations with	Henrik Virta	Finnish Meteorological In		Evaluation of vulnerability indicators in urban areas	Jana Seidlová	CENIA, Czech Environme	
	Radiation monitoring onboard CubeSats	Jan Gieseler	1 - Department of Physic		Usage of Sentinel-1 radar data for soil moisture mapping	Iva Batrlová	CENIA, Czech Environme	
	Could a LEO constellation provide a solution for pervasive PNT in the fu	Heidi Kuusniemi	(1) University of Helsinki,					
	Aalto-3 – The Current Status of the Open Source Student Satellite	Mikko Simenius & J	Aalto University					
19:00	Sauna							

Wednesday 22 January 2020

Time	Topic	Speaker	Organization	Time	Topic	Speaker	Organization
09:00	Registration opens			09:00	Registration opens		
	Hall: Kaleva /dipoli				Hall: Lumituuli, Dipoli		
	CubeSat Missions III				SAR Applications		
	Chair: Rizwan Muhammad Mughal				Chair: Penelope Kourkoulis		
09:00	Kvarken Space Center and mission KvarkenSat	Kendall Rutledge	University of Vaasa, 2Novia University	09:00	Dark Vessel Detection with Small Satellite SAR Constellation	Simon Andersson	ICEYE Oy
09:20	Cubic-inch hyperspectral imager for space exploration	Roberts Trops	VTT Technical Research Centre	09:20	FLOOD MONITORING USING NEAR REAL-TIME ICEYE SAR DATA	Penelope Kourkoulis	ICEYE Oy
09:40	Picosatellite Constellation for Impact Surveillance and Hazard	Eloy Peña Asensio	Institute of Space Sciences (IES)	09:40	Arctic sea ice thickness estimation based on Sentinel-1 SAR imagery	Juha Karvonen	Finnish Meteorological Institute
10:00	From the first Slovak satellite to high energy astrophysics	Marcel Frajt	Spacemanic, Slovak Organisation	10:00	Evaluating land fast ice ridging near Utqiagvik Alaska using TanDEM-X	Marjan Marbouti	
10:20	Coffee			10:20	Coffee		
	SATCom technologies and 5G I				Climate		
	Chair: Risto Wichman				Chair: Anu-Maija Sundström		
11:00	Space and Cyber Security in ESA	Massimo Mercati	European Space Agency	11:00	Hurricanes as seen from satellites	Svante Henriksson	Hurricane Unwinder Ltd
11:20	Beyond 5G satellite-terrestrial networks for autonomous system	Marko Höyhtyä	VTT	11:20	Merging regional and global AOD records from major available sources	Larisa Sogacheva	FMI
11:40	VTT 5GTN for Terrestrial-Satellite Network Integration Testing	Mikko Vehkaperä	VTT Technical Research Centre	11:40	Methane Fluxes at Northern Latitudes using Earth Observations	Ella Kivimäki	Finnish Meteorological Institute
12:00	Satellite communications from mobile network	Pauls Irbins	Science center ZINOO	12:00	SAMPO: Direct Readout data for atmospheric composition - what's next?	Seppo Hassinen	FMI, NASA
12:20	Lunch			12:20	Lunch		
	SATCom technologies and 5G II				EO Data I		
	Chair: Marko Höyhtyä				Chair: Mikko Stralendorff		
13:20	Low Earth Orbit Satellite Networking in 5G Convergence and Beyond	Risto Wichman	Aalto University, Tampere University	13:20	Copernicus Finnish Ecosystem	Ali Nadir Arslan(1)	(1) Finnish Meteorological Institute
13:40	CubeSat-based characterization of ionospheric propagation properties	Jussi Säily	VTT MilliLab, Reaktor Space Lab	13:40	Analysis Ready Data for Finland	Mikko Stralendorff	Finnish Meteorological Institute
14:00	Utilizing Spatial Modulation over Satellite Communications	Mehmet Ilter	Department of Signal Processing	14:00	Data Protection and Space - What Challenges will GDPR Face us?	Heidi Kuusniemi	(1) University of Helsinki, Faculty of Science
14:20	A phased antenna ground station for 435 MHz range	Philipp Oleynik	Department of Physics and Astronomy	14:20	FPCUP end user survey for satellite data products in Finland	Mikko Moisander	FMI, SYKE
14:40	Coffee			14:40	Coffee		
	SATCom technologies and 5G III				EO Data II		
	Chair: Jussi Säily				Chair: Heidi Kuusniemi		
15:20	Distributed peer-to-peer satellite data relay	Laurynas Maciulis	Space Union	15:20	AI-based satellite and drone image georeferencing	Matti Anttila	Space Systems Finland
15:40	Panel discussion: low Earth orbit telecommunication constellation	Leo Nyman	Atlantisat startup (Kirsi Ekberg)	15:40	Variability of CO2 over global oceans from OCO-2	Sindu Raj Parampi	FMI
16:00	Ka-band spectrum sharing between satellite and mobile	Heikki Kokkinen	Fairspectrum Oy(1), VTT(2), Aalto(3)	16:00	Bringing satellite imagery data to global audience (Earth at your fingertips)	Olga Bodet	Zero Gravity Oy
16:20		N.N	Erillisverkot	16:20	Exploring big Earth Observation data	Samantha Wittke	Finnish Geospatial Research Institute
	Wrapping up						
16:50	Final Words						