# DAY-3 POSTERS

A1.08 Aeolus Mission: Scientific Highlights and Data Exploitation

A3.03 Wetland - Methods and Algorithms, Science, Applications and Policy

A3.07 Land Cover - Methods and Algorithms, Science, Applications and Policy

A3.10 Novel in-situ collection for agricultural and forest structure applications

A3.11 Land Surface Temperature and Emissivity Data for Research and Applications

A4.01 Terrestrial Carbon Cycle from Global to National

A4.02 Earth Observations for AFOLU estimation and reporting

A6.01 Geospace System Science: Thermosphere, Ionosphere, Magnetosphere and Their Coupling

A7.04 Irrigation estimates and management from EO data

A8.03 Ocean Carbon From Space

A8.08 Advances and EO Applications in Remote Sensing of Marine Litter and Debris

A8.12 Synergies between Earth Observation and BGC-Argo autonomous profilers

A9.03 The NASA-ESA Arctic Methane and Permafrost Challenge (AMPAC) Initiative

B1.04 FLEX validation status and plans

B2.02 FLEX - ESA's Photosynthesis Mission

B3.02 Arctic Weather Satellite

B6.03 EnMAP – The German Spaceborne Imaging Spectroscopy Mission

B6.04 PRISMA Hyperspectral mission: characteristics achievements and data exploitation

B8.05 Copernicus Contributions Missions (VHR)

B8.06 Copernicus Sentinel-6 Michael Freilich

C5.02 Big EO data platforms

C5.05 Earth System & EO Data Cube Services and Tools for Scientific Exploitation

D1.05 International Collaboration to better understand risks using satellite EO (GEO, CEOS, etc.)

D2.04 Sustainable Development Goals (SDGs)

D2.07 Water Resources Management

D2.09 Sustainable Natural Resources and Energy

D2.10 GEOGLAM the First Decade: Progress in Operational Agricultural Monitoring

D2.13 Sustainable Development of coastal areas

E2.02 Climate Security - The key role of R&I and cooperation to address global threats

E3.06 Mediterranean Regional Applications and Science

**A1.08 Aeolus Mission: Scientific Highlights and Data Exploitation**

| Board | ID | Title | Author |
|---|---|---|---|
| 587 | 66135 | VirES for Aeolus - Virtual Research Environment (VRE) | Daniel Santillan et al. |
| 588 | 62967 | COLOR: CDOM-proxy retrieval from aeOLus ObseRvations | Davide Dionisi et al. |
| 589 | 71074 | Aeolus Performance Monitoring at DLR - From Satellite Level to Airborne Validation | Christian Lemmerz et al. |
| 590 | 67418 | Long-term validation of the Aeolus L2B wind product above Germany | Alexander Geiß et al. |
| 591 | 64368 | Validation of Aeolus wind measurements on Cape Verde using radiosondes | Maurus Borne et al. |
| 592 | 64446 | First results from ASKOS as part of JATAC: Validation of Aeolus products and intense aerosol characterization using ground-based remote sensing and airborne in-situ | Holger Baars et al. |
| 593 | 64774 | Characterization of Aeolus wind measurement errors | Federico Cossu et al. |
| 594 | 62926 | The impact of Aeolus observations on boundary layer wind forecast over Europe | Haichen Zuo et al. |
| 595 | 63684 | NWP calibration applied to Aeolus Mie channel winds | Gert-Jan Marseille et al. |
| 596 | 63847 | 1. Incorporating ALADIN/Aeolus lidar observations into a climate record of cloud profile | Artem Feofilov et al. |
| 597 | 64381 | Collocation of Geostationary and Low Orbit Satellites for 3D Dynamics Observations of Convective Systems over Tropical Atlantic | Tran Vu La et al. |
| 598 | 64375 | Optical properties of Californian aging smoke plume retrieved by Aeolus L2A algorithms during long-range transport above Atlantic | Dimitri TRAPON |
| 599 | 64870 | First Climate-Relevant Results of JATAC/CAVA-AW: the Atmospheric Heating Rate in the Saharan Aerosol Layer | Marija Bervida et al. |
| 600 | 64991 | Aeolus Aerosol Assimilation in the DISC (A3D): Status and Preliminary Results | William McLean et al. |
| 601 | 66450 | Highlights of Aeolus aerosol products derived using modified ATLID algorithms | Ping Wang et al. |
| 602 | 67174 | Australian wildfire-generated Smoke-Charged Vortex observed by Aeolus wind and aerosol profiling | Sergey Khaykin et al. |

**A3.03 Wetland - Methods and Algorithms, Science, Applications and Policy**

| Board | ID | Title | Author |
|---|---|---|---|
| 181 | 63388 | Monitoring long-term change in wetland surface water and vegetation dynamics using dense Earth Observation time series imagery | Gyula Mate Kovács et al. |
| 182 | 63149 | Towards comprehensive, accurate, and high-resolution global aquatic land cover mapping | Panpan Xu et al. |
| 183 | 63157 | Land use and land cover change detection on Barbuda before and after the Hurricane Irma 2017 with respect to potential land grabbing within the Ramsar site | Andreas Rienow et al. |
| 184 | 65218 | Assessment of a remote sensing-based indicator for quantifying wetland use intensity in East Africa | Stefanie Steinbach et al. |
| 185 | 64645 | Water quality monitoring in Térraba Sièrpe Wetland (Costa Rica) using multi- and hyperspectral EO data | Nicole Pinnel et al. |
| 186 | 64673 | DOMAIN ADAPTATION OF DRONE MULTISPECTRAL AND RADAR SATELLITE DATA USING GENERATIVE ADVERSARIAL NETWORKS FOR WATER HYACINTH DETECTION | Vahid Akbari et al. |
| 187 | 64757 | Products relevant to wetland monitoring from the ESA Scout-2 HydroGNSS mission | Weiqiang Li et al. |
| 188 | 64951 | Data-driven scheme to model global CH4 emissions in wetlands and inundated areas using extended GIEMS-2 | Juliette BERNARD et al. |
| 189 | 67331 | Methane emissions during soil freezing in autumn at northern latitudes | Tuula Aalto et al. |

| Board | ID | Title | Author |
|---|---|---|---|
| 190 | 64514 | Improving water surface extent delineation of Swedish Ramsar wetlands with multi-sensor and open-source satellite data | Farzad Vahidi Mayamey et al. |
| 191 | 66282 | In-situ measurement techniques in remote sensing research over wetlands | Patryk Grzybowski et al. |
| 192 | 65733 | Dynamics of open water and vegetated wetlands extent from Sentinel-1 dual-polarised data in a prairie catchment in North Dakota | Stefan Schlaffer et al. |
| 193 | 64996 | Assessment of the highest annual burned area of the Century in the Brazilian Pantanal using Copernicus Sentinel 2 images | Yosio Edemir Shimabukuro et al. |
| 194 | 67386 | Towards a Global Mangrove Protected Area Monitoring Platform | Liza Goldberg et al. |
| 195 | 64411 | Mapping of várzea forest types in the western Amazon using remote sensing | Antje Uhde et al. |

**A3.07 Land Cover - Methods and Algorithms, Science, Applications and Policy**

| Board | ID | Title | Author |
|---|---|---|---|
| 198 | 63092 | VALIDATING AND COMPARING 10M RESOLUTION GLOBAL LAND COVER MAPS | Myke Koopmans et al. |
| 199 | 63108 | GLOBAL LAND COVER CHANGE MONITORING: CHALLENGES AND OPPORTUNITIES | Nandika Tsendbazar et al. |
| 200 | 61943 | BFAST Lite for detecting land cover change using time series of estimated land cover fractions | Dainius Masiliūnas et al. |
| 201 | 64982 | Improving robustness of global land cover fraction change mapping using a Markov chain model | Rob Burger et al. |
| 202 | 64200 | Migrants: The pull effect of rural industrial areas as seen from space | Itohan-Osa Abu et al. |
| 203 | 62008 | Harnessing remote sensing data to map the change in the spatial distribution of Tuta absoluta (Meyrick) (Lepidoptera: Gelechiidae) in tomato farms in Kenya | Komi mensah Agboka et al. |
| 204 | 62444 | Detection of land-use change and recovery in the Congo Basin, and the challenges of remote sensing | Coralie Adams et al. |
| 205 | 62963 | Machine-learning-based high-resolution mapping of vegetation cover types in Greater Maasai Mara Ecosystem using WorldView-3 and Sentinel-2 imagery | Wang Li et al. |
| 206 | 63711 | Understanding land degradation in local context, Copperbelt, Zambia | Sana Munawar et al. |
| 207 | 63167 | A Comparative Analysis of MODIS-derived Drought Indices for Northern and Central Namibia | Daniel Wyss |
| 208 | 65139 | Identifying recent surface dynamics in the Namib Desert (Namibia) using Sentinel-1, Sentinel-2 and Landsat time series | Tobias Ullmann et al. |
| 209 | 63156 | ESA-CCI High Resolution Land Cover products: Contribution to the parameterization of ORCHIDEE land surface model and to the understanding of land-atmosphere | Rodrigo San Martín et al. |
| 210 | 62528 | SAR land cover mapping experience in the HR Landcover CCI+ ECV project | Tonia Sorriso et al. |
| 211 | 63184 | Land Cover Classification using Sentinel-1 data: Machine Learning vs Deep Learning | Yonatan Tarazona Coronel |
| 212 | 63799 | Exploring Time Series of Sentinel-1 Interferometric Coherence in Land Cover Mapping: A Step Forward | Juan M. Lopez-Sanchez et al. |
| 213 | 67348 | Towards operational surface water extent estimation from C-band sentinel-1 SAR imagery | Jungkyo Jung et al. |
| 214 | 66431 | Current status and dynamics of vegetation cover in Noril'sk industrial region, north-central Siberia | Olga Tutubalina et al. |
| 215 | 65595 | Land cover mapping with Gaussian Processes at the country scale using sparse and variational approaches | Valentine Bellet et al. |
| 218 | 64010 | Activity-Based Intelligence for Land Cover Change Detection: A novel framework for Border Surveillance | José Pedro Santos |
| 219 | 65224 | Accounting for the uncertainty of forest species maps constructed with remotely sensed information | Jessica Esteban Cava et al. |

| Board | ID | Title | Author |
|---|---|---|---|
| 220 | 64594 | Creating training samples from land cover agreement maps: the procedure and the results obtained in the case of the Random Forest classification | Gorica Bratic et al. |
| 221 | 65067 | An Earth Observation approach for monitoring and mapping the spatial distribution of bird habitats around the Irish Sea | Walther C. A. Camaro Garcia et al. |
| 222 | 65082 | Forest Land use change mapping in Mato grosso using SLIC segmentation approach and classes posterior confidence | Cédric Lardeux et al. |
| 223 | 65281 | iota2: large scale land cover mapping operational chain | Arthur Vincent et al. |
| 224 | 67267 | Towards a multiscale sampling scheme for land cover and land cover change validation. Lessons learned from the CCI Medium Resolution Land Cover project. | Céline Lamarche et al. |
| 225 | 65640 | Unraveling land use land cover change dynamics from the annual 300m global land cover maps time series from 1992 to 2020 | Pierre Defourny et al. |
| 226 | 66480 | Products and Services of the " Urban" THEIA Scientific Expertise Centre | Anne Puissant et al. |
| 227 | 66401 | Detection of urban changes from bi-temporal and tri-stereoscopic Pleiades imagery | Clément Bressant et al. |
| 228 | 66840 | A global assessment of spatiotemporal uncertainties in Land Cover – a key indicator for monitoring land-based natural capital change | Caterina Barrasso et al. |
| 229 | 67043 | Assessing ESA's WorldCover 2020 operational product accuracy in a Mediterranean setting | Isidora Isis Demertzi et al. |
| 230 | 67340 | Sentinel-2 data in Land use, land-use change, and forestry (LULUCF) monitoring | Jan Svoboda et al. |
| 231 | 65845 | Comparison of hierarchical and flat land cover classification of Sentinel-2 data | Adam Waśniewski et al. |
| 232 | 67464 | Wall-to-wall land cover mapping and their change for Central Europe from 1985 to 2020 | Katarzyna Ostapowicz et al. |
| 233 | 65297 | Mapping 43 land cover classes in Europe across 20 years at 30m resolution with spatiotemporal ensemble machine learning | Martijn Witjes |
| 234 | 65301 | How confident are you in making decisions based on the map in your hand? | Conrad Bielski et al. |
| 235 | 67152 | Updating the Walloon land cover map by operational application of artificial intelligence with a deep local authorities' appropriation | Damien Draime et al. |
| 236 | 67051 | Mapping and updating land surface area types through semantic segmentation of the Copernicus Pan-European very high-resolution image mosaics | Misganu Debella-Gilo et al. |
| 237 | 63331 | Remote sensing crop group specific indicators to support regional yield forecasting in Europe | Giulia Ronchetti et al. |

**A3.10 Novel in-situ collection for agricultural and forest structure applications**

| Board | ID | Title | Author |
|---|---|---|---|
| 121 | 65058 | Monitoring crop phenology with street-level imagery using computer vision | Raphael d'Andrimont et al. |
| 122 | 67329 | LUCAS LF: an EU-level harmonized approach for in situ data collection on landscape features in agricultural land | Balint Czucz et al. |
| 123 | 63017 | Enhancing the LUCAS crop information to support machine learning classifications | Oliver Buck et al. |
| 124 | 63565 | Provision of FAIR in-situ data for calibration and validation in RS precision agriculture | Mike Teucher et al. |
| 125 | 63557 | Crop Classification Synthetic Training Data Generation With Use Of Generative Adversarial Network | Nataliia Kussul et al. |
| 126 | 65352 | LITERAL: a portable and accurate system for fast experimental measurements of crop characteristics | Benoit de Solan et al. |
| 127 | 66841 | Investigation of Sentinel-2-based grassland management using daily webcam images | Dominique Weber et al. |
| 128 | 65022 | Using drones to improve reference data collection for crop type mapping in sub-Saharan countries | Artur Nowakowski et al. |

| Board | ID | Title | Author |
|---|---|---|---|
| 129 | 64231 | Photochemical dynamics and structural effects in the spectral range of 500-600 nm at leaf and canopy scales | Adrian Moncholi et al. |
| 130 | 65605 | Early detection of Sporobolus densiflorus injury from glyphosate using chlorophyll fluorescence and hyperspectral reflectance measurements | Estefania Piegari et al. |
| 131 | 67302 | In situ topsoil SWIR scanning system to support Common Agricultural Policy environmental performance monitoring | Konstantinos Karyotis et al. |
| 132 | 65207 | EO data & ground measurements fusion: Long-term monitoring of climate change mitigation | David Moravec et al. |
| 133 | 65689 | Development of a Hand-Held, Low-Cost, Open-Hardware Hyperspectral VIS Platform for Educational and Scientific Applications | Rudolf Benedikt Hartweg et al. |
| 134 | 65691 | Advantages of a coupled multitemporal high-precision UAV-based LiDAR and multispectral data approach to assess plant physical properties of maize | Robert Rettig et al. |
| 135 | 65568 | Estimation of aboveground biomass in clover-grass mixtures using UAV-based vegetation indices and canopy height | Konstantin Nahrstedt et al. |
| 136 | 64402 | Characterization of an Evergreen coniferous forest growth using terrestrial LiDAR | Alvaro Lau Sarmiento et al. |
| 137 | 66810 | The FieldMApp – a flexible tool for the standardised acquisition of in-situ data | Sina Truckenbrodt et al. |
| 138 | 67352 | Scaling Effects regarding the Applicability of Tower-based Experiments Results relating Microwave Backscatter to Meteorological Observations : study case of | Salma El Idrissi Essebtey et al. |
| 139 | 65057 | Phenotyping Radiata Pine Plantations using Proximal and Remote Sensing | Henning Buddenbaum et al. |

**A3.11 Land Surface Temperature and Emissivity Data for Research and Applications**

| Board | ID | Title | Author |
|---|---|---|---|
| 381 | 64254 | Assessment of algorithms for detecting high temperature phenomena and thermal anomalies for the NASA Surface Biology and Geology (SBG) mission | Anamika Shreevastava et al. |
| 382 | 63201 | Using ECOSTRESS to inform pre-burn vegetation conditions for Southern California Wildfires | Madeleine Pascolini-Campbell et al. |
| 383 | 64159 | Diurnal temperature and evapotranspiration dynamics over time in forest restoration projects using the ECOSTRESS moderate resolution thermal imager | Jonas Hamberg et al. |
| 384 | 67489 | MASSIVE MULTI-YEAR FLOODING EVENT IN SOUTH SUDAN - USING THERMAL DATA IN SUPPORT OF MAJOR HUMANITARIAN ERMEGENCY OPERATIONS | Sebastian Boeck et al. |
| 385 | 66954 | Validation of an explicitly angular and emissivity-dependent split-window algorithm for Land Surface Temperature retrieval from Sentinel-3 SLSTR | Lluís Pérez Planells et al. |
| 386 | 65440 | Variability of the Lake Surface Water Temperature (LSWT) in Issyk-Kul Lake using Sentinel 3-SLSTR and ECOSTRESS sensors | Ivan HERNANDEZ-GALINDO et al. |
| 387 | 64462 | Assessment of Land Surface Temperature in regions of high dust aerosol concentrations | Francesco Stante et al. |
| 388 | 64573 | A new multispectral space sensor in the MWIR spectral region for high temperatures events – The SISSI Project | Vito Romaniello et al. |
| 389 | 65017 | THERMOCITY : urban thermography from space | Vincent LONJOU et al. |
| 390 | 65699 | Large Scale Exploitation of Satellite Data for the Assessment of Urban Surface Temperatures: First results from the EO4UTEMP project | Zina Mitraka et al. |
| 391 | 63107 | Development of Urban Satellite based Thermal Indices (DUSTI) | Mike Perry et al. |
| 392 | 63114 | Improving temperature observations from Space to close the energy budget of the Earth in support of UNFCCC objectives and the Paris Agreement | Abigail Marie Waring Waring et al. |
| 393 | 63820 | Explaining the Aerodynamic versus Radiometric Surface Temperature Paradox in Thermal-based Evaporation Modeling | Kaniska Mallick et al. |
| 394 | 63045 | SST AT 70-M SCALE FROM ECOSTRESS ON THE SPACE STATION: APPLICATION TO COMPLEX COASTS AND INTERTIDAL FLATS | David Wethey et al. |
| 395 | 66955 | How can Land Surface Temperature contribute to better understand snowpack changes? | Claudia Notarnicola et al. |

| Board | ID | Title | Author |
|-------|-----|-------|--------|
| 396 | 63320 | Temperature and Emissivity Separation from MODIS multispectral TIR data | Drazen Skokovic et al. |
| 397 | 63618 | TRISHNA Surface Temperature and Emissivity Retrievals: the TRISHTES algorithm | Emilie Delogu et al. |
| 398 | 64086 | Passive microwave observations emitting depth estimation in arid areas | Samuel Favrichon et al. |

## A4.01 Terrestrial Carbon Cycle from Global to National

| Board | ID | Title | Author |
|-------|-----|-------|--------|
| 352 | 65205 | Tracking impacts of deforestation and degradation on the Amazon carbon balance | Dominic Fawcett et al. |
| 353 | 66927 | Land-use change emissions based on high-resolution data substantially lower than previously estimated | Raphael Ganzenmüller et al. |
| 354 | 67020 | Land use and land cover change emissions by models – a spatio-temporal comparison of different approaches | Wolfgang Obermeier et al. |
| 355 | 64815 | Integrating the Sentinels for novel fuel, fire and emissions products to constrain the changing role of vegetation fires in the global carbon cycle | Matthias Forkel et al. |
| 356 | 65035 | Estimating vegetation fuel loads for the quantification of fire emissions by integrating various Earth observation data | Christine Wessollek et al. |
| 357 | 64894 | Impact of the inclusion of socio-economic variables on data-driven models in predicting global fire ignition occurrences | Tichaona Mukunga et al. |
| 358 | 63817 | Towards near-real-time estimates of greenhouse gas budgets | Philippe Ciais et al. |
| 359 | 66863 | Carbon sequestration and heat island mitigation with urban forests | Levente Klein et al. |
| 360 | 64964 | The contribution of C-band scatterometers to the quantification of global forest above-ground biomass during the last 30 years | Maurizio Santoro et al. |
| 361 | 67004 | FLUXCOM-X: Towards improving the assessment of the terrestrial carbon cycle from spaceborne and in-situ data | Martin Jung et al. |
| 362 | 65507 | Regional to global scale GPP estimates derived from a synergistic exploitation of Copernicus Sentinel missions - the Sen4GPP project | Florian Poustomis et al. |
| 363 | 63242 | A novel approach for assimilating retrievals of microwave vegetation optical depth into a land surface model | Samuel Scherrer et al. |
| 364 | 65253 | VODCA2GPP - A new global, long-term (1988-2020) GPP dataset from passive microwave remote sensing | Wouter Dorigo et al. |
| 365 | 65740 | Quantifying the Disturbance Regimes Based on Vegetation Biomass Dynamics | Siyuan Wang et al. |
| 366 | 67259 | Quantifying photosynthetic carbon uptake following land cover changes using TROPOMI and GOME-2 Solar-Induced Fluorescence (SIF) data | Juliëtte Anema et al. |
| 367 | 67133 | Detecting the impacts of increasing CO2 on a temperate forest: hyperspectral and fluorescence responses to elevated CO2 in large-scale field experiment | Kadmiel Maseyk et al. |
| 368 | 67453 | Resolving the current and future carbon dynamics of the dry tropics (SECO) | Casey Ryan et al. |
| 369 | 66971 | Campaign activities in support of ESA Land Surface Carbon Constellation study | Juha Lemmetyinen et al. |
| 370 | 67081 | Northern High Latitude Methane Budgets Inferred from an Atmospheric Inverse Model | Aki Tsuruta et al. |
| 371 | 65524 | Adaptation of the Peak Height method to solar lines for TROPOMI SIF retrieval | Antti Kukkurainen et al. |
| 372 | 64346 | Assessing cryosphere-biosphere linkages with Earth Observation in northern high latitudes (CryoBioLinks) | Kristin Böttcher et al. |
| 373 | 64947 | Assessing the changes in GPP from the new ecland photosynthesis model associated with changes in LAI, land cover and climate using satellite-based Earth | Anna Agusti-Panareda et al. |
| 374 | 62729 | Assessing changes in landscape metrics and aboveground biomass in Brazilian Savanna: case study of Rio Vermelho Watershed, Brazil | Chuanze Li et al. |

| 375 | 66550 | First data-driven map of peat thickness distribution across Peruvian Amazonia reveals a substantial and largely intact component of the global carbon cycle | Adam Hastie et al. |
| 376 | 62869 | A machine learning approach to model spatiotemporal patterns of soil temperature and soil moisture as drivers for soil organic carbon mineralization | Maiken Baumberger et al. |
| 377 | 64777 | On the potential of optical remote sensing parameters to track GPP dynamics from sub-diurnal to seasonal scale – A case study in a winter wheat field in Germany | Vera Krieger et al. |
| 378 | 65107 | FLEX retrieval of fluorescence quantum efficiency as the essential step to quantify actual photosynthesis from space | Shari Van Wittenberghe et al. |
| 379 | 63232 | Carbon fluxes estimation at scale: long-term, continuous, high spatial resolution with uncertainties at continental scales | Laura Martínez-Ferrer et al. |

## A4.02 Earth Observations for AFOLU estimation and reporting

| Board | ID | Title | Author |
|---|---|---|---|
| 402 | 63826 | A burned area record for the 2019-2021 fire seasons derived from Sentinel-2 and ancillary data: Italy as a test case | Luca Pulvirenti et al. |
| 403 | 66392 | COST EFFECTIVE PROMISES OF REMOTE SENSING DATA: TRACKING SOIL ORGANIC CARBON SEQUESTRATION IN GRAZING SYSTEMS USING SENTINEL-2 SATELLITE | Gisel Booman et al. |
| 404 | 67214 | Carbon farming - changed agriculture praxis's and verified carbon storage in soil. | Anders Wästfelt |
| 405 | 63923 | Quantifying land change in South America since 1985 | Viviana Zalles et al. |
| 406 | 65630 | Development of an arctic-boreal fire atlas using Visible Infrared Imaging Radiometer Suite active fire data | Rebecca Scholten et al. |
| 407 | 65377 | Estimating emissions from fires in the Amazon and Cerrado biomes of South America | Dominic Fawcett et al. |

## A6.01 Geospace System Science: Thermosphere, Ionosphere, Magnetosphere and Their Coupling

| Board | ID | Title | Author |
|---|---|---|---|
| 469 | 64400 | Forecasting Space Weather in the Arctic Region | Yaqi Jin et al. |
| 470 | 64454 | Ionospheric plasma irregularities in relation to dynamic auroral forms | Florine Enengl et al. |
| 471 | 64998 | Long Term Statistical Space Weather Analysis | Pascal Sado et al. |
| 472 | 66563 | Comparison of electron density fluctuations measured by Swarm satellites with the ground-based scintillation data | Daria Kotova et al. |
| 473 | 64880 | SODA, an ESA-SWE pilot study to predict space weather effects on LEO satellites | Manuela Temmer et al. |
| 479 | 63849 | Sub-kilometer plasma density variability in the polar ionosphere | Lasse B.N. Clausen et al. |
| 480 | 67059 | Space weather operations with the SMOS mission: what an Earth observing satellite can tell about solar activity | Manuel Flores-Soriano et al. |
| 481 | 62437 | TIRO: Topside Ionosphere Radio Observations from multiple LEO-missions | Lucas Schreiter et al. |
| 482 | 67126 | ESA Heliophysics Working Group – working towards making European Heliophysics great(er) again. | Matt Taylor et al. |
| 483 | 62372 | Preliminary Validation of Thermosphere Observations from the TOLEOS Project | Timothy Kodikara et al. |
| 484 | 64214 | Joule Heating and the Atmospheric Dynamo | Stephan Buchert |
| 485 | 64263 | An update on the scientific activities of the Enhanced Polar Outflow Probe's Radio Receiver Instrument | Gareth Perry et al. |
| 486 | 67254 | Data centre for CME arrival forecasting and magnetic effectiveness tools as part of SWESNET project. | Filomena Catapano |

| Board | ID | Title | Author |
|---|---|---|---|
| 487 | 64841 | Swarm-derived indices of geomagnetic activity | Constantinos Papadimitriou et al. |
| 488 | 64131 | The opportunity of simulating and predicting thermospheric and ionospheric variables through tuning models by Swarm measurements | Mona Kosary et al. |
| 489 | 65400 | Drivers of the variability of ionospheric plasma observed by the Swarm satellites | Alan Wood et al. |
| 490 | 64216 | A novel technique to identify scale-dependent lags and its application to ionospheric science | Jaroslav Urbar et al. |
| 491 | 64768 | Variability of the spatio/temporal scales in the ionosphere at Swarm altitudes | Luca Spogli et al. |
| 492 | 63511 | Characterizing very high electron temperature events as observed by Swarm constellation at high latitudes | Igino Coco et al. |
| 493 | 63451 | Polar cap patches scaling properties investigated through Swarm observations | Roberta Tozzi et al. |
| 494 | 63689 | Investigating the correlation between electron density and temperature in the topside ionosphere through Swarm satellites data | Alessio Pignalberi et al. |
| 495 | 64401 | Observations at high latitude of pressure-gradient current from Swarm measurements | Giulia Lovati et al. |
| 496 | 65208 | INGV MUF nowcasting and forecasting methods | Carlo Scotto et al. |
| 497 | 65493 | Study of the foF2 variations at the Ionospheric Observatory of Rome during the last solar minima, in relation to the geomagnetic activity | Dario Sabbagh et al. |
| 498 | 65678 | Thermospheric parameters during ionospheric G-conditions | Loredana Perrone et al. |
| 499 | 64311 | Ionospheric Turbulence: Impact on the Global Navigation Satellite Systems Functioning | Paola De Michelis et al. |
| 500 | 66524 | Variations in ionospheric scintillation from GNSS observations in Greenland | Sarah Beeck et al. |
| 501 | 65033 | Characterization of ionospheric total electron content with VGOS and GNSS observations. | Nataliya Zubko et al. |
| 502 | 63561 | Swarm-E GPS osbervations of ionosphere total electron content and multi-scale plasma structures | Christopher Watson et al. |
| 503 | 67336 | Quasi-Tomographic Study of Equatorial Ionospheric Irregularity Distributions Using Multiple Instruments Onboard CASSIOPE/Swarm E | Ali Mohandesi et al. |

**A7.04 Irrigation estimates and management from EO data**

| Board | ID | Title | Author |
|---|---|---|---|
| 152 | 64633 | Detection and evolution (2010-2021) of irrigated areas and volumes over Africa, the Arabian Peninsula and the Middle East using SMOS and SMAP soil moisture | Thierry Pellarin et al. |
| 153 | 64945 | Leveraging Google Earth Engine for national mapping and water use estimation of irrigated agriculture. | Oliver Miguel Lopez Valencia et al. |
| 154 | 61511 | Remote Sensing based Water accounting of Krishna River Basin for efficient water management in Karnataka, India | P Somasekhar Rao et al. |
| 155 | 61512 | Remote Sensing Based Water Productivity Assessment of an Irrigated Command Area in Karnataka, India | P Somasekhar Rao et al. |
| 156 | 63012 | Optimizing Crop Segmentation in Heterogeneous Agriculture Scenario across Phenology of Brassica oleracea var. botrytis | Shubham Rana et al. |
| 157 | 65230 | A prototype of operational irrigation-water-requirement monitoring chain for an inner Alpine valley based on EO data | Francesco Avanzi et al. |
| 158 | 64837 | Turf irrigation management at commercial airports | Juergen Born et al. |
| 159 | 65544 | Assessment of water accounting by using Sentinel-2 data: The INCIPIT project | Oscar Rosario Belfiore et al. |
| 160 | 66324 | Iran-wide analysis of agricultural developments in relation to water availability using 20 years of global satellite and climate reanalysis data | Robert Behling et al. |

| Board | ID | Title | Author |
|---|---|---|---|
| 161 | 63295 | Observing Soil Moisture variation with closure phases using C-Band Sentinel-1 Interferometry | Nuno Cirne Mira et al. |
| 162 | 66489 | Joint analysis of Sentinel-1 and SAOCOM data sensitivity to soil moisture content over an agricultural area | Giovanni Anconitano et al. |
| 163 | 63998 | Combining Sentinel-1 and Sentinel-2 Observations to Estimate Cotton Water Consumption, Leaf Area Index, and Height | Gregoriy Kaplan et al. |
| 164 | 65287 | Crop water stress quantification using thermal infrared – from field experiments to space borne irrigation management | Florian Werner et al. |
| 165 | 67096 | Irrigated area mapping with a distributed remote sensing driven water balance model | Claire I. Michailovsky et al. |
| 166 | 65368 | New disaggregated Soil Moisture product at 20 m: Validation and Applications for irrigation mapping | Giovanni Paolini et al. |

## A8.03 Ocean Carbon From Space

| Board | ID | Title | Author |
|---|---|---|---|
| 342 | 63182 | Primary Production, an Index of Climate Change in the Ocean: Satellite-Based Estimates over Two Decades | Gemma Kulk et al. |
| 343 | 65561 | Ocean colour estimates of global particulate organic carbon in the mixed layer | Christina Eunjin Kong et al. |
| 344 | 64906 | Evaluation of phytoplankton functional types in the trans-Atlantic Ocean from multi-sensor based satellite observations with independent in-situ information | Hongyan Xi et al. |
| 345 | 67371 | The Lampedusa Oceanographic Observatory: a multi-sensor platform to support satellite investigations of the CO2 fluxes at the sea-air interface in the | Mattia Pecci et al. |
| 346 | 63057 | A study on the satellite based ocean surface primary productivity around the Korean peninsula using GOCI | Jong-Kuk Choi et al. |
| 347 | 63846 | Monitoring and parameterization of plankton dynamics in the European Sector of the Arctic Ocean | Aleksandra Cherkasheva et al. |
| 348 | 66915 | Arctic land-ocean organic carbon flux variability and its drivers monitored using ESA CCI ECVs | Bennet Juhls et al. |
| 349 | 63131 | Development of a machine learning approach for the estimation of the marine $CO_2$ partial pressure over the global coastal ocean in the frame of the CO2COAST project | Roy El Hourany et al. |

## A8.08 Advances and EO Applications in Remote Sensing of Marine Litter and Debris

| Board | ID | Title | Author |
|---|---|---|---|
| 319 | 65419 | Tackling the plastic debris challenge at its source – Linking EO data with multi-source in-situ data for modelling debris pathways from source to sink | Anna Brand et al. |
| 320 | 62740 | The Use of Spaceborne Radars to Image Ocean Microplastic Dynamics | Christopher Ruf et al. |
| 321 | 64611 | Detection of Marine Plastic Source Locations using Machine Learning applied to Sentinel-1 & Sentinel-2 Data | Samantha Lavender et al. |
| 322 | 65637 | Feasibility of a satellite mission for monitoring marine macroplastics | Stefan Livens et al. |
| 323 | 64415 | Coastal Marine Litter Observatory: drone imagery and AI for marine litter detection | Konstantinos Topouzelis et al. |
| 324 | 64067 | Identifying macro plastics assisted by close-range hyperspectral remote sensing and deep learning | Nina Gnann et al. |
| 325 | 66571 | Assessment of Machine Learning for floating marine litter detection | Lenka Fronkova et al. |
| 326 | 66853 | PLASTIC MONITOR: Detecting riverine plastic conglomerations, fluxes and pathways in Indonesia | Marieke Eleveld et al. |
| 327 | 62710 | Eyes on Plastic – flying high, diving deep to fight aquatic plastic litter | Eva Maria Haas et al. |
| 328 | 63621 | Detecting and recognising surface accumulations in Sentinel-2 imagery | Tiit Kutser et al. |

| 329 | 63646 | Monitoring of Large Plastic Accumulation Near Dams Using Sentinel-1 Polarimetric SAR Data | Morgan Simpson et al. |
|---|---|---|---|
| 330 | 63653 | Ocean Global Watcher: Detection of marine anomalies using radar or optical satellite images | Adrien Lagrange et al. |
| 331 | 66965 | Using a drone-based thermal infrared camera to monitor floating plastic litter | Lonneke Goddijn-Murphy et al. |
| 332 | 67385 | Ocean Scan, a marine debris database from Earth and space | Laia Romero et al. |
| 333 | 66777 | A review of the application of satellite mapping techniques for marine litter monitoring | michael king et al. |
| 334 | 67469 | Airborne backscatter LIDAR data over the Great Pacific Garbage Patch and their processing for the Detection of Marine Litter: pros and cons analysis | Lorenzo Palombi et al. |
| 335 | 66724 | River plastic monitoring from space: Fact of fiction? | Tim van Emmerik et al. |
| 336 | 64613 | River plastics from space: Combining Sentinel-1 and UAV imagery to monitor mixed debris patches | Louise Schreyers et al. |
| 337 | 65445 | Using hyperspectral radiometry towards subpixel detection of plastic debris on rivers and shorelines. | Aser Mata et al. |
| 338 | 67309 | Finding Floating Plastics in Plant Patches using Worldview-3 Satellite Imagery | Lauren Biermann et al. |

**A8.12 Synergies between Earth Observation and BGC-Argo autonomous profilers**

| Board | ID | Title | Author |
|---|---|---|---|
| 309 | 63521 | Mesoscale eddies' effect on surface and subsurface biology in the North Atlantic: from phytoplankton to zooplankton | Guiyan Han et al. |
| 310 | 63864 | 3-Dimensional phytoplankton composition in the transatlantic region via multi-sensor data fusion | Ehsan Mehdipour et al. |
| 311 | 63737 | Vertically resolved light models for the global ocean based on machine learning techniques | Pannimpullath Remanan Renosh et al. |
| 312 | 63000 | BGC-Argo radiometry to assess CDOM-proxy retrieved from AEOLUS observations | Davide Dionisi et al. |
| 313 | 63271 | BGC-Argo and Earth Observation to assess the impact on, and the resilience of, marine ecosystems after a Marine Heat Wave | Emanuele Organelli et al. |
| 314 | 63516 | Assessing Integrated Satellite-Float Productivity Estimates in the NASA EXPORTS Campaigns | Shawnee Traylor et al. |
| 315 | 64836 | Radiometry on Biogeochemical-Argo floats: towards hyperspectral measurements on a global array ? | Edouard Leymarie et al. |
| 316 | 65047 | Can information related to the sea state be extracted from an Argo float? | Antoine Poteau et al. |

**A9.03 The NASA-ESA Arctic Methane and Permafrost Challenge (AMPAC) Initiative**

| Board | ID | Title | Author |
|---|---|---|---|
| 428 | 67127 | Assessing the Feasibility of Multiple DInSAR Schemes for Pan-Arctic Monitoring of Permafrost Change under a Rapidly Warming Climate | Keith Morrison et al. |
| 429 | 64891 | ESA Permafrost_CCI algorithm - how to map changes in permafrost temperature and thaw depth at global scale | Sebastian Westermann et al. |
| 430 | 67357 | ESA GlobPermafrost – Remote Sensing Time Series Data Visualization | Antonie Haas et al. |
| 431 | 64289 | Permafrost vulnerability – an EO-based assessment from multiple ESA CCI essential climate variables | Alexandra Runge et al. |
| 432 | 64272 | Earth Observation-based Time Series Analysis of Retrogressive Thaw Slump Dynamics in the Russian High Arctic | Sophia Barth et al. |
| 433 | 64664 | Quantifying Rapid Permafrost Thaw with Computer Vision and Graph Theory | Tabea Rettelbach et al. |

| 434 | 66735 | Conceptualization for combining Remote Sensing and Modelling to quantify and predict Rapid Permafrost Degradation on the New Siberian Islands | Cornelia Inauen et al. |
|------|-------|------|------|
| 435 | 66921 | A new dynamic land cover classification of the Arctic Lena Delta for scaling methane fluxes | Guido Grosse et al. |
| 436 | 66879 | Circumpolar landcover characterization for climate change applications with Sentinel-1/2 data | Annett Bartsch et al. |
| 437 | 64935 | Exploring the added benefit of including Sentinel-1 and Sentinel-2 imagery in mapping of drained lake basins in Arctic permafrost areas | Helena Bergstedt et al. |
| 438 | 65110 | Challenges in use of C-band SAR for carbon cycle related landcover characterization across the Arctic | Xaver Muri et al. |
| 439 | 66807 | Potential of the Space Lidar Mission MERLIN for Remote Sensing of Arctic Methane | Thomas Diehl et al. |
| 440 | 67045 | Assessing Arctic atmospheric methane monitoring in a 4D OSSE comparing synthetic observations from satellite missions and atmospheric tower networks in | Martijn Pallandt et al. |
| 441 | 66958 | The role of environmental drivers constraining the seasonality of methane in large scale at high latitudes | Ella Kivimäki et al. |
| 442 | 67175 | Systematic evaluation of TROPOMI methane observations at high latitudes | Hannakaisa Lindqvist et al. |

## B1.04 FLEX validation status and plans

| Board | ID | Title | Author |
|-------|-----|-------|--------|
| 55 | 66834 | Impacts of forest structures on canopy SIF modelled for FLEX Cal/Val purposes with Discrete Anisotropic Radiative Transfer | Zbyněk Malenovský et al. |
| 56 | 65306 | Development of a portable system for in-field calibration validation to improve the ground-based measurements for the future Earth Explorer Mission FLEX | Laura Mihai et al. |
| 57 | 63585 | First INTA`s Chlorophyll Fluorescence Sensor (CFL) Imagery Products Evaluation for FLEX CalVal Activities | Marcos Jiménez et al. |
| 58 | 63609 | Does the light environment matter? A comprehensive analysis of the impact of light environment on leaf spectral chlorophyll fluorescence across a range of species | Paulina Rajewicz et al. |
| 59 | 63996 | Spatial relation between Sun-induced Chlorophyll Fluorescence (SIF) and the Plant Available Water (PAW) in the root zone | Juan Quiros et al. |
| 60 | 64047 | Sun-induced Chlorophyll Fluorescence (SIF)-downscaling from the fractal geometry perspective | Juan Quiros et al. |
| 61 | 65184 | Comparing leaf and canopy red and far-red sun-induced fluorescence under heat and drought conditions | Sebastian Wieneke et al. |
| 62 | 64864 | HyScreen, a ground-based hyperspectral imaging system for solar-induced fluorescence (SIF) retrieval from leaf to plant canopy | Huaiyue Peng et al. |

## B2.02 FLEX - ESA's Photosynthesis Mission

| Board | ID | Title | Author |
|-------|-----|-------|--------|
| 54 | 63316 | FLEX Instrument Flight Model Subsystems Features and Performance: Focal Plane System, Low Resolution Spectrometer, and Double Slit Assembly | Hermann Bittner |

## B3.02 Arctic Weather Satellite

| Board | ID | Title | Author |
|-------|-----|-------|--------|
| 427 | 67485 | HiSRAMS flight tests and radiation closure | Natalia Bliankinshtein et al. |

## B6.03 EnMAP – The German Spaceborne Imaging Spectroscopy Mission

| Board | ID | Title | Author |
|-------|-----|-------|--------|
| 11 | 67012 | Toward intra-annual vegetation cover fraction maps from EnMAP and future global spaceborne imaging spectroscopy missions | Akpona Okujeni et al. |
| 12 | 62832 | Toward a global cryosphere product: Optimal estimation of snow and ice surface properties from spaceborne imaging spectrometers | Niklas Bohn et al. |

| 13 | 63580 | Analysis-Ready Data (ARD) from Hyperspectral Sensors—The Design of the EnMAP L2A Land Product | Martin Bachmann et al. |
|----|-------|-------|-------|
| 14 | 63590 | FIRST EVALUATION OF POLYMER ATMOSPHERIC CORRECTION ALGORITHM APPLIED TO DESIS AND PRISMA HYPERSPECTRAL SENSORS OVER COASTAL AND INLAND | Mariana Soppa et al. |

**B6.04 PRISMA Hyperspectral mission: characteristics achievements and data exploitation**

| Board | ID | Title | Author |
|-------|-----|-------|--------|
| 15 | 64597 | PRISCAV: toward a scientific CAL/VAL of the PRISMA mission | Lorenzo Genesio et al. |
| 16 | 63030 | Products and Applications for inland and coastal WATER for PRISMA hyperspectral imagery: the PANDA-WATER project | Federica Braga et al. |
| 17 | 64060 | First evaluation of PRISMA Level-2 data for inland, coastal and marine water applications | Federica Braga et al. |
| 18 | 64389 | The benefits of hyperspectral imagery in Black Sea coastal waters near the Danube Delta: comparison of PRISMA and Sentinel-2 observations | Irina Gancheva et al. |
| 19 | 64589 | Simultaneous retrieval of aerosols and marine parameters with PRISMA | Federico Serva et al. |
| 20 | 63827 | PRISMA potential for geological outcrop mapping: natural asbestos (Val di Taro, Italy) and porphyry gold (Shadan, Iran) deposits | Simone Pascucci et al. |
| 21 | 65081 | The Potential of Hyperspectral PRISMA Satellite Data to Map VNIR-SWIR-active minerals in the Iberian Pyrite Belt | Anne Blumberg et al. |
| 22 | 66820 | Application of PRISMA satellite hyperspectral imagery for man-made materials classification in urban areas: a case study in Tuscany Region (Italy) | Luisa Beltramone et al. |
| 23 | 63947 | Olive trees classification and abandonment identification with PRISMA imagery | Celeste Righi Ricco et al. |
| 24 | 64164 | Crop yield estimation with PRISMA and Sentinel-2 image time series | Michael Marshall et al. |
| 25 | 64714 | Environmental impact assessment on human health: advanced methods for hyperspectral data exploitation | Giovanni Corsini et al. |
| 26 | 64807 | Forest Fire Fuel Map from PRISMA Hyperspectral Data: Algorithms and first results | Alessia Tricomi et al. |
| 27 | 65307 | earthbit4PRISMA | Cristoforo Abbattista et al. |

**B8.05 Copernicus Contributions Missions (VHR)**

| Board | ID | Title | Author |
|-------|-----|-------|--------|
| 5 | 65485 | Sentinel-3 C/D Payload status and evolutions since A&B | Benedikt Guldimann et al. |
| 6 | 67248 | Introducing Vision-1 to the ESA Copernicus Programme | Lisa Haskell et al. |
| 7 | 64501 | Guardians of the Earth: ensuring safety with Pléiades Neo | Morgane Bonneau |

**B8.06 Copernicus Sentinel-6 Michael Freilich**

| Board | ID | Title | Author |
|-------|-----|-------|--------|
| 318 | 71107 | On-ground processing and performance of the Poseidon-4 altimeter internal calibration: chirp replica and attenuator | Michele Scagliola et al. |

**C5.02 Big EO data platforms**

| Board | ID | Title | Author |
|-------|-----|-------|--------|
| 81 | 62699 | Emerging Big Data Platform for Water Cycle and Flood Detection | Thomas Huang |
| 82 | 64316 | The JRC Big Data Analytics Platform (BDAP) | Pierre Soille |

| Board | ID | Title | Author |
|---|---|---|---|
| 83 | 65182 | A user perspective on future cloud-based services for Big Earth data | Julia Wagemann et al. |
| 84 | 63546 | Get HyP3! Cloud-native SAR processing for everyone | Joseph H. Kennedy et al. |
| 85 | 63835 | On the optimal data processing of the Soil Moisture and Ocean Salinity measurements | Aina García-Espriu et al. |
| 86 | 63892 | A Google Earth Engine application to retrieve high resolution Land Surface Temperature from Landsat imagery | Sofia L. Ermida et al. |
| 87 | 63941 | Novel Workflow Implementations To Facilitate Big Earth Observation Data Workflows in Nextflow | Florian Katerndahl et al. |
| 88 | 66897 | Introducing the OPERA project for systematic surface water, surface deformation, and surface disturbance data products from satellite observations | David Bekaert et al. |
| 89 | 64239 | LOOSE: Combining loosely coupled components into coherent architecture | Julian Meyer-Arnek et al. |
| 90 | 67086 | CODE-DE a cloud for public authorities to implement innovative EO and AI applications utilizing Copernicus data and services | Michael Schmidt |
| 91 | 65229 | Food Security TEP: Recent Advances and Evolutions | Silke Migdall et al. |
| 92 | 65076 | Serving Extreme Analytics on the Food Security TEP – Crop Type Mapping | Florian Appel et al. |
| 93 | 64630 | ESA Agriculture Virtual Laboratory (AVL): an online community open science tool for Earth Observation agricultural scientists | Sophie Bontemps et al. |
| 94 | 64740 | Quantifying vegetation variables over Europe with Sentinel-3 OLCI top-of-atmosphere radiance data using Gaussian processes regression in Google Earth | Pablo Reyez Muñoz et al. |
| 95 | 64959 | Maximizing data return through scheduling optimization | Pablo Bernal et al. |
| 96 | 65161 | Standards-based, Federated Exploitation Platforms | Ingo Simonis et al. |
| 97 | 65311 | Global Earth Monitor | Matej Batič et al. |
| 98 | 65370 | Showcasing the semantic EO data cube infrastructure for Austria | Martin Sudmanns et al. |
| 99 | 65489 | EarthConsole®: a cloud-based platform for earth observation data exploitation | Giancarlo Rivolta et al. |
| 100 | 67091 | STAC and COG to support a Cloud native EO multi-mission processing platform | Emmanuel Mathot et al. |
| 101 | 65560 | Democratizing Earth Observation with the WASDI EO analytics platform | Guy Schumann et al. |
| 102 | 65651 | Secure, federated, efficient cloud EO components - OGC suite innovations | Piotr Zaborowski et al. |
| 103 | 66580 | A scalable platform-based solution for a rapid response to Oil Spill Detection and Monitoring | Chandra Taposeea-Fisher et al. |
| 104 | 66780 | EOPaaS: a Platform as a Service for Earth Observation | Cesare Rossi et al. |
| 105 | 64610 | OrthoRectification as a Service | Luigi Agrimano et al. |
| 106 | 67194 | MAAP, a Multi-mission Algorithm and Analysis Platform | Marie BOUTET et al. |
| 107 | 67396 | The DYDAS – "DYnamic Data Analytics Services" platform for HPC big data analytics of Earth Observation and Geospatial data | Matteo Picchiaini et al. |
| 108 | 67474 | ASB – A scalable platform enabling big EO data analytics in cloud based environments | Bernard Valentin et al. |

**C5.05 Earth System & EO Data Cube Services and Tools for Scientific Exploitation**

| Board | ID | Title | Author |
|---|---|---|---|

| 109 | 65776 | Pixels United: An Open, Standards-Based Datacube Federation | Peter Baumann |
|---|---|---|---|
| 110 | 64954 | Geo Engine: Leveraging harmonized data access for interactive geo-analytics | Christian Beilschmidt et al. |
| 111 | 64174 | Unleash the power of Data and Analytics with OneAtlas | Patryk Jaskula |
| 112 | 63664 | Danube Data Cube | Márton Tolnai et al. |
| 113 | 66975 | Experiences of scientific exploitation of EO data in a platform collaborative environment for coastal research and applications | Laura Candela et al. |
| 114 | 64684 | Semantic Earth observation data cubes using AVHRR and Sentinel-3 | Hannah Augustin et al. |
| 115 | 66540 | Dutch Sentinel-2 spatio-temporal data cubes for data mining and education | A.L. van Natijne et al. |
| 116 | 66852 | EO Data at Scale Using the Open Data Cube (ODC): Leveraging Satellite, UAV and IoT Data to Perform Combined Analyses | Oguz Yetkin et al. |
| 117 | 67256 | A Data Cube on-demand to handle atmospheric composition datasets from European EO missions | Maurizio Bottaccio et al. |
| 118 | 63309 | NADIR ALTIMETRY FOR HYDROLOGY: A SHOWCASE OF WEB SERVICE FOR THE OPTIMISATION OF DATA ACQUISITION | Simon Boitard et al. |
| 119 | 64257 | Unlocking Earth observation data for South-East Asia using the Open Data Cube | Amy Parker et al. |

## D1.05 International Collaboration to better understand risks using satellite EO (GEO, CEOS, etc.)

| Board | ID | Title | Author |
|---|---|---|---|
| 31 | 63183 | Detecting Artillery Craters in Conflict Zones with Semantic Segmentation Convolutional Neural Networks | Erik Duncan et al. |
| 32 | 64437 | An In-Time Flood Monitoring Service Using Capella Constellation | Chia-Hsiang Yang et al. |
| 33 | 64420 | The CEOS Recovery Observatory: towards the operational use of satellite imagery in support of recovery from major disasters | Hélène de Boissezon et al. |
| 34 | 63073 | Assessment of recent trends of wildfire activity in Europe | Michael Nolde et al. |
| 35 | 65106 | Recent outcomes of the activity of the Mt. Etna Supersite in the frame of the volcanic risk management | Giuseppe Puglisi et al. |
| 36 | 65563 | The ESA Charter Mapper: an operational EO processing environment to support multi hazard disaster mapping activities | Mauro Arcorace et al. |

## D2.04 Sustainable Development Goals (SDGs)

| Board | ID | Title | Author |
|---|---|---|---|
| 255 | 63897 | Cop4SDGs – Copernicus for sustainability indicators | Ronja Redlich et al. |
| 256 | 64852 | GAUSS: Generating Advanced Usage of Earth Observation for Smart Statistics | Evangelos Gerasopoulos et al. |
| 257 | 67425 | Social benefit of space missions mapped into the Sustainable Development Goals | Camilla Colombo et al. |
| 258 | 63310 | Germany-wide land cover classification and imperviousness mapping for annual settlement and infrastructure monitoring based on Sentinel-2 data | Guido Riembauer et al. |
| 259 | 63913 | Mapping deprived urban areas in support of SDG 11 – Free Earth Observation data to implement the Domain of Deprivation Framework | Monika Kuffer et al. |
| 260 | 66900 | USING EARTH OBSERVATION DATA AND MACHINE LEARNING TO MAP URBAN POPULATION IN DATA SCARCE ENVIRONMENTS | Stefanos Georganos et al. |
| 261 | 67321 | Sentinel-2 MSI data for urban land use efficiency monitoring in Kigali, Rwanda to support sustainable development | Theodomir Mugiraneza |

| Board | ID | Title | Author |
|---|---|---|---|
| 262 | 64441 | Creating sustainable development index combining satellite data with other data sources: application on the assessment of the sustainability of the global tourism | Tarek Habib |
| 263 | 65239 | Investigating the mutual impact between refugee camps and their environment with Sentinel-1&2 time-series - Preliminary results of the ARICA project. | Jörg Haarpaintner et al. |
| 264 | 67272 | LUCKINet - buidling the next generation of global gridded data prodcuts on multiple facets of land-use | Steffen Ehrmann et al. |
| 265 | 66690 | Monitoring of the SDG 2.4.1 and 15.3.1 indicators on the CREODIAS platform with using in-situ data | Sergiy Sylantyev et al. |
| 266 | 65210 | How connectivity and other digital solutions can support the decarbonization of the green economy | Rita Rinaldo et al. |
| 267 | 67327 | Closing the gap in access to EO data for climate risk monitoring and analysis through an easy to configure and deploy open-source solution designed for | Amit Wadhwa et al. |
| 268 | 64035 | Evaluation of Open Dump Detection in Vietnam using Multi-sensor Remote Sensing Data | Ka Hei Pinky Chow et al. |
| 269 | 62797 | NEXTLAND forestry services fulfil UN sustainable development goals | Alireza Taravat et al. |
| 270 | 65265 | Developing SDG indicators for the assessment of yield capacity, land use intensity and vulnerability of agricultural soils in Germany | Heike Gerighausen et al. |
| 271 | 66391 | NASA Harvest Portal: A Data Platform for Agricultural Supply Chains Analysis | Michael Humber et al. |

## D2.07 Water Resources Management

| Board | ID | Title | Author |
|---|---|---|---|
| 168 | 66969 | Deriving high-resolution soil moisture-based drought indices from remote sensing: towards resilient irrigation practices | Vivien-Georgiana Stefan et al. |
| 169 | 67432 | SWALIS/KaRADOC project: a calibration procedure for a Ka-band sensor | Kokou Jean-Claude KOUMI et al. |
| 170 | 64939 | Monitoring of Power Station Cooling Water Discharge using LANDSAT 8 TIRS | Tiago Silva et al. |
| 171 | 65506 | Glacial Lake Water Extent Mapping from Space | Manu Tom et al. |
| 172 | 65130 | Remote Sensing for Water Management Tasks | Kian Pakzad |
| 173 | 65204 | Surface Soil Moisture (SSM) Over the Masovian voivodeship in Poland | Patryk Grzybowski et al. |
| 174 | 66281 | Human and natural processes both induce changes along rivers: The cases of Mura (Slovenia) and Vjosa (Albania) | Urša Kanjir et al. |
| 175 | 67026 | Dam basin filling high frequency monitoring through Sentinel-1 data: the GERD use case | Filippo Britti et al. |
| 176 | 64921 | Operational weekly inland excess water mapping | Zalán Tobak et al. |
| 177 | 66336 | Why Aculeo Lagoon Disappeared – Explained from The Remote Sensing Point of View | Guido Staub |

## D2.09 Sustainable Natural Resources and Energy

| Board | ID | Title | Author |
|---|---|---|---|
| 240 | 65197 | Estimating building type-based PV energy balances using UAV data for urban infrastructure planning | Gebhard Warth et al. |
| 241 | 66925 | InSAR Displacement Monitoring at Tailings Storage Facilities | Malte Vöge et al. |
| 242 | 65578 | Exploiting Sentinel-1 and Sentinel-2 data for prospect scale exploration: the GREENPEG project case studies | Joana Cardoso-Fernandes et al. |
| 243 | 64561 | Integrated Mining Impact Monitoring (EU-Project i2Mon) for Open-pit and Underground Mines | Chia-Hsiang Yang et al. |

| Board | ID | Title | Author |
|---|---|---|---|
| 244 | 63778 | Spectral Variation of solar Photovoltaic (PV) Modules at Different Orientations | Chaonan Ji et al. |
| 245 | 65011 | Earth Observation based energy infrastructures to support GIS-like energy system models | Susanne Weyand et al. |
| 246 | 65696 | CAMS Solar Radiation Service, variability-based evaluation and service evolution to other parts of globe | Faiza Azam et al. |
| 247 | 67491 | Sentinel data in support of sustainable energy production - assessing the potential to identify onshore wind turbines | Annekatrin Metz-Marconcini et al. |
| 248 | 63815 | Co-designing satellite wind products for offshore wind energy | Merete Badger et al. |
| 249 | 64189 | GPM and IMERG rain data used to estimate the risk of rain erosion at wind turbines | Charlotte Hasager et al. |

**D2.10 GEOGLAM the First Decade: Progress in Operational Agricultural Monitoring**

| Board | ID | Title | Author |
|---|---|---|---|
| 140 | 63927 | Field Geometry and the Spatial and Temporal Generalization of Crop Classification Algorithms—A Randomized Approach to Compare Pixel Based and Convolution | Mario Gilcher |
| 141 | 65222 | Cloud based European Union Common Agricultural Policy applications and tools for advanced agriculture monitoring | Klaudia Bielińska |
| 142 | 63339 | Combining crop growth models and Earth Observation data to monitor crops over large areas | Jose Gómez-Dans et al. |
| 143 | 62738 | Big Earth Data for global cropping intensity mapping at 30 m resolution | Bingfang Wu et al. |
| 144 | 62864 | Field Boundary Mapping in Small Scale Farming using Multi-Resolution Satellite Data: a Case Study in Cambodia and Viet Nam | Claudia Paris et al. |
| 145 | 62936 | Tracking the phenological developments of crops by a complementary set of interferometric and polarimetric time series derived from Sentinel-1 at the JECAM | Johannes Löw et al. |
| 146 | 65154 | Monitoring crop growth at JECAM sites in Poland and South Africa using in-situ and satellite data | Radoslaw Gurdak et al. |
| 147 | 62991 | Archetype crop trait co-dynamics from Sentinel 2 | Feng Yin et al. |
| 148 | 64380 | FORECASTING WHEAT YIELD OVER THE MAJOR WHEAT EXPORTING COUNTRIES | Belén Franch Gras et al. |
| 149 | 66352 | Spatio-temporal comparison of the vegetation anomalies products used in the agricultural monitoring systems: West Africa case | Agnes Begue et al. |

**D2.13 Sustainable Development of coastal areas**

| Board | ID | Title | Author |
|---|---|---|---|
| 276 | 61959 | C-RISe – Developing capacity to apply satellite data in managing coastal risk and supporting sustainable development in the South West Indian Ocean. | David Cotton et al. |
| 277 | 63450 | The use of satellite data for Western Indian Ocean front and upwelling identification in the SOLSTICE project | Chris Banks et al. |
| 278 | 64424 | DFG Special Priority Program (SPP-1889) Regional Sea Level Change and Society ('SeaLevel') | Detlef Stammer et al. |
| 279 | 65267 | A methodological framework for the monitoring of mangrove dynamics based on remote sensing data to support policy making and conservation initiatives | Quentin GUSMAI et al. |
| 280 | 66277 | Creating an open-access web service for assessing urban beaches' sustainability | Alexandra Culibrk et al. |
| 281 | 64680 | Mapping inland pond aquaculture for the coastal zone of Asia: an object-based, multi-sensor approach using Sentinel-1 and Sentinel-2 time-series | Marco Ottinger et al. |

**E2.02 Climate Security - The key role of R&I and cooperation to address global threats**

| Board | ID | Title | Author |
|---|---|---|---|
| 273 | 65729 | The impact of droughts on vegetation condition and land use in the Central Highlands of Vietnam – Analyses based on Earth observation time-series | Juliane Huth et al. |

| Board | ID | Title | Author |
|-------|-----|-------|--------|
| 274 | 67462 | Investigation of dust storms and effective factors in their formation (including overseas and inland studies) in the southern and southwestern provinces of Iran | TAYEBEH MESBAHZADEH |

## E3.06 Mediterranean Regional Applications and Science

| Board | ID | Title | Author |
|-------|-----|-------|--------|
| 298 | 63399 | Landsat based analyses of major land use and cover transformations after Spain's accession to the EU | Stellmes Marion et al. |
| 299 | 64122 | Harvest forecasting for early warning on production shocks: the MED-Amin crop monitoring 2022 | Giacinto Manfron et al. |
| 300 | 63485 | 4DMED-Hydrology: capitalizing high resolution Earth Observation data for a consistent reconstruction of the Mediterranean terrestrial water cycle | Christian Massari et al. |
| 301 | 64196 | The Apollo mediterranean hurricane: from weather scenarios to flooded areas | Luca Ferraris et al. |
| 302 | 64228 | How can numerical weather prediction support the ATM activity during severe weather events? | Vincenzo Mazzarella et al. |
| 303 | 64360 | Optimizing multi-platform sampling strategies to anticipate SWOT validation | Bàrbara Barceló-Llull et al. |
| 304 | 67400 | The ESA Ulysses project and the exploitation in the Mediterranean area of Soil Sealing products and indicators | Angelo Amodio et al. |
| 305 | 64730 | The Mediterranean Regional Information Network (MedRIN): An EO Partnership for Land Cover / Land Use Change (LCLUC) Science | Diofantos Hadjimitsis et al. |
| 306 | 65395 | The Eratosthenes Centre of Excellence as a world-class Digital Innovation Hub (DIH) for EO and Geospatial Information in the Eastern Mediterranean, Middle East and | Diofantos Hadjimitsis et al. |
| 307 | 65634 | Space4Maritime: diving into space-based solutions for the maritime domain in the Mediterranean region. Challenges and opportunities to foster to collaboration | Marco Tomassetti et al. |