



AGU 2019 PRESENTATIONS FEATURING PLANET

Monday 9 December 2019

Lead Author	Affiliation	Title	Format	Date	Time
Bruno Aragon	King Abdullah University of Science and Technology	Importance of retrieval frequency and spatial resolution in crop water use management	Talk	12/09	eLightning
Juwon Kong	Seoul National University	Monitoring canopy photosynthesis in high spatial and temporal resolution using CubeSat imagery	Poster	12/09	08:00-12:20
Kelly Hondula	University of Maryland SESYNC	Capturing Inundation Dynamics of Small Forested Wetlands at High Spatial and Temporal Resolution for Improved Estimation of Methane Fluxes	Poster	12/09	13:40-18:00
Matthew Wiseman	Williams College	Impact of the length of the sea ice-free summer season on Alaskan Arctic coastal erosion rates	Poster	12/09	13:40-18:00
Rubaya Pervin	Indiana University Bloomington	Multi-Source Remote Sensing Data Fusion for Detecting Changes in Shrub Cover in Semi-Arid Regions	Talk	12/09	17:00-17:15
Joe Kingston	Planet	Spatially and Temporally Consistent Smallsat-Derived Basemaps for Analytic Applications	Poster	12/09	13:40-18:00
Rasmus Houborg	Planet	Harmonization and inter-calibration of data streams from UAVs, CubeSats, Sentinel-2, and Landsat 8	Talk	12/09	16:00-16:15
Jashvina Devadoss	Columbia University + LBNL	Remote sensing-informed zonation for capturing snow-plant-soil interactions and dynamics in the sub-alpine Rocky Mountains	Poster	12/09	08:00-12:20
Eric Vermote	NASA Goddard	Validation of high spatial resolution surface reflectance using a camera system (CAMSIS)	Poster	12/09	08:00-12:20
Hannah Friedrich	Oregon State University	Breaking Ground: Automating the Detection of Refugee Settlement Establishment and Growth through Landsat and PlanetScope Time Series Analysis with a Case Study in Northern Uganda	Talk	12/09	08:15-08:30
Sergii Skakun	University of Maryland College Park	Analysis of corn and soybean yield variability at field scale using VHR satellite data	Poster	12/09	08:00-12:20

Lead Author	Affiliation	Title	Format	Date	Time
Anna Liljedahl	University of Alaska Fairbanks	Permafrost Discovery Gateway: A web platform to enable discovery and knowledge-generation of permafrost Big Imagery products	Poster	12/09	13:40–18:00
Budhendra Bhaduri	Oak Ridge National Laboratory	Monitoring the Pulse of our Planet: Towards the 100 Trillion Pixel Challenge	Talk	12/09	09:12-09:24

Tuesday 10 December 2019

Lead Author	Affiliation	Title	Format	Date	Time
Mercedes Kindler	Arizona State University	Observations and Modeling of Soil Moisture and Evapotranspiration in Irrigated Urban Parks of a Desert City	Talk	12/10	09:30-09:45
Bruno Aragon	King Abdullah University of Science and Technology	Towards Ultra High-Resolution Plant Water Use Mapping: Synergizing ECOSTRESS with Planet CubeSats	Talk	12/10	14:55-15:10
Dongmei Feng	University of Massachusetts Amherst	Comparing discharge estimates in high-order Arctic rivers derived solely from optical CubeSat, Landsat, and Sentinel-2 data	Poster	12/10	08:00–12:20
Ting Li	King Abdullah University of Science and Technology	Delineating Center-Pivot Fields Using Landsat , Sentinel-2, and Planet Data and a Machine Learning Approach	Poster	12/10	13:40–18:00
Keelin Haynes	Miami University Oxford	Monitoring, Mapping, and Modeling Land-Cover/ Land-Use Change: A Case Study of Shifting Agricultural Landscape and Livelihoods in An Giang and Dong Tháp, Viet Nam	Poster	12/10	13:40–18:00
Kevin Murphy	NASA Goddard	NASA's Earth Observations from the Private-Sector Small Constellation Satellite Data Product Pilot Project	Talk	12/10	18:15–19:15
Matthew Hansen	University of Maryland College Park	Towards Global Monitoring of Key Commodity Crops Using Multi-Source Data	Talk	12/10	09:45-10:00
Haiyan Huang	Michigan State University	Validation of a 30 m combined Landsat 8 and Sentinel 2A/B burned area product using high resolution PLANET Dove-Classic and Dove-R constellation data	Talk	12/10	14:40-14:55
Elizabeth Hoy	NASA Goddard	Enabling Collaborative Research During ABoVE Through Coordinated Data Management	Poster	12/10	13:40–18:00

Wednesday 11 December 2019

Lead Author	Affiliation	Title	Format	Date	Time
Beth Tellman	Columbia University Earth Institute	Monitoring inundated infrastructure and assets with high resolution satellite imagery to enable financial protection	Poster	12/11	08:00-12:20
Benjamin Idini	Caltech	The first three days of the 2019 Ridgecrest earthquake sequence	Talk	12/11	17:45-18:00
Jin Wu	University of Hong Kong	Novel integration of multi-scale remote sensing improves characterization of tropical phenology from individual tree-crowns to landscapes	Talk	12/11	11:05-11:20
Ben Roberts-Pierel	Oregon State University	Multi-Sensor Assessment of Changes in Seasonal Snow Cover Persistence in the Columbia River Basin Using Cloud Computing Platforms	Poster	12/11	13:40-18:00
Kasper Johansen	King Abdullah University of Science and Technology	Mapping the Extent of Center Pivots and Associated Irrigation: A Comparison of an Annual Time-Series of Landsat and PlanetScope Imagery	Poster	12/11	08:00-12:20
Kejie Chen	Caltech	Separating the Rupture Kinematics of the 2019 Mw 6.4 Searles Valley and Mw 7.1 Ridgecrest Earthquakes by Geodetic and Seismic Observations	Poster	12/11	08:00-12:20
Matthew McCabe	King Abdullah University of Science and Technology	Precision agriculture using Planet satellites: capturing daily water use and crop behavior over a growing season	Talk	12/11	eLightning
Quelyn Bekkering	Michigan Technological University	Testing the Use of Vegetation Indices as Indicators of Pre-eruptive Volcanic Unrest at Kilauea Volcano, Hawaii	Poster	12/11	08:00-12:20
Sarah Simon	University of Massachusetts Amherst	Testing the capabilities of cubesats for operational flood mapping	Poster	12/11	13:40-18:00
Zhehan Tang	UC Davis	Multi-sensor Monitoring of Processing Tomato at a Field-scale	Poster	12/11	08:00-12:20
Yohai Magen	Tel Aviv University + Geological Survey of Israel	The Ridgecrest Conjugate Earthquake Pair: A Joint Slip Inversion of InSAR, Optical Imagery and GPS	Poster	12/11	08:00-12:20
Ryan Gold	USGS	Surface rupture associated with the 2019 Ridgecrest earthquake sequence: Comparison of field-based and remotely sensed observations	Talk	12/11	16:30-16:45
Danqing Huang	King Abdullah University of Science and Technology	Capturing multi-resolution water use within olive orchards using Sentinel-2, Planet and unmanned aerial vehicle (UAV) data	Poster	12/11	08:00-12:20
Mariam Ayad	California State University Los Angeles	Remote Sensing Analysis and Classification of Stormwater and Sewage Runoff in the Tijuana River	Poster	12/11	13:40-18:00
Laurence Smith	Brown University	Multi-source Remote Sensing of Arctic-Boreal Surface Water	Talk	12/11	16:00-16:15
Minjeong Jo	NASA Goddard	Complementary Use of Synthetic Aperture Radar and High-resolution Optical Imagery for Flood Monitoring	Poster	12/11	13:40-18:00
Shashank Shushan	University of Washington	Automated tools to derive short-term glacier velocity from high-resolution commercial satellite imagery	Poster	12/11	08:00-12:20

Lead Author	Affiliation	Title	Format	Date	Time
J. Michelle Hu	University of Washington	Machine Learning Classification and Derived Snow Metrics from High-Resolution Multispectral Satellite Imagery in Complex Terrain	Poster	12/11	13:40–18:00
Lawrence Hessburg IV	CU Boulder	Using "Deep Learning" and Physically Constrained Neural Networks to Derive Complex Glaciological Change Processes from Modern Satellite Imagery	Poster	12/11	08:00–12:20
Yaping Cai	University of Illinois at Urbana Champaign	Detecting in-season crop nitrogen stress of corn for field trials using UAV- and CubeSat-based multi-spectral sensing	Poster	12/11	08:00–12:20

Thursday 12 December 2019

Lead Author	Affiliation	Title	Format	Date	Time
Lyndon Estes	Clark University	Improving maps of smallholder-dominated croplands through tight integration of human and machine intelligence	Talk	12/12	11:05–11:20
Abinash Bhattachan	UCLA	Using geospatial datasets to characterize mosquito larval habitats in the Los Angeles Basin	Talk	12/12	eLightning
Octave Lepinard	Middlebury College	Testing the Capabilities of Machine Learning and Remote Sensing to Quantify the Carbon Storage of Temperate Deciduous Forests	Poster	12/12	13:40–18:00
Sarah Cooley	Brown University	Tracking fine-scale changes in surface water using CubeSat imagery	Talk	12/12	08:21–08:24
Kathrine Udell	Georgia Institute of Technology	Water, on Ice! : Diurnal-scale Observational Analysis of the Hydrology of Three Greenland Tidewater Glaciers from Planet Satellite Imagery	Poster	12/12	08:00–12:20
Anthony Cannistra	University of Washington	Assessing High-Resolution CubeSat Imagery and Machine Learning for Detailed, High Resolution Snow-Covered Area	Talk	12/12	10:50–11:05
David Shean	University of Washington	Stereo2SWE: Snow depth time series from very-high-resolution stereo satellite imagery	Talk	12/12	10:35–10:50
Karl Rittger	CU Boulder	Multi-platform, multi-sensor snow surface properties for energy balance and model validation	Talk	12/12	11:05–11:20
Kausik Kolluri	Stanford University	Creating A Training Data Set For A Convolutional Neural Network Classifier To Map Landslides	Poster	12/12	08:00–12:20
Alyssa Whitcraft	NASA Harvest (UMD)	How Can Public-Private Partnerships Use Earth Observations to Tackle Global Agricultural Challenges?	Town Hall	12/12	12:30–13:30

Friday 13 December 2019

Lead Author	Affiliation	Title	Format	Date	Time
Luiz Fernando Leal	MIT	Finding Anthropogenic Dark Earth in the Amazon Basin Using Fully Convolutional Networks	Talk	12/13	eLightning
Lin Liu	Michigan State University	Evaluating the Impact of Field Heterogeneity on Food Security Assessment in Tanzania	Poster	12/13	08:00–12:20

Lead Author	Affiliation	Title	Format	Date	Time
Yoann Malbeteau	King Abdullah University of Science and Technology	Monitoring Crop Water Use at Field Scales Using Remotely Sensed Big Data	Talk	12/13	16:30-16:45
Leah Nagel	UC Davis	Quantifying post-restoration changes in hydrology and vegetation composition in subalpine meadows using high-resolution satellite imagery	Poster	12/13	08:00-12:20
Johnny Ryan	Brown University	Combining satellite remote sensing with Indigenous knowledge and community-based monitoring to understand shorefast ice dynamics in Uummannaq Bay, Greenland	Poster	12/13	08:00-12:20
Rasmus Houborg	Planet	Very high resolution (daily, 3 m) data cubes of surface reflectance synergizing observations from CubeSats, Sentinel-2, Landsat 8, and MODIS	Talk	12/13	16:00-16:15
Tanya Harrison	Planet	Science Enabled by High Cadence and High Resolution Imagery from the Planet Constellation of Satellites	Talk	12/13	eLightning
Bronwyn Agrios	National Geographic Society	National Geographic Society Vital Signs of the Planet - Automating the Development of a High Resolution Land Use, Land Cover Change Dataset for the Globe	Poster	12/13	13:40-15:40
Giuseppe Molinario	World Bank	Understanding Disaster Risk Using a Focused Un-conference Experience	Poster	12/13	08:00-12:20