2022 ASPRS Annual Conference

At Geo Week February 6-8, 2022 Denver, CO, US

Monday, February 7, 2022

Room	Start Time	Stop Time	Title		
301	**8:30 AM**	**10:45 AM**	**ASPRS Workshop: UAS Lidar Project Planning**		
302	**8:30 AM**	**9:45 AM**	**ASPRS Panel: NGS Datum Modernization Program**		
302	**9:45 AM**	**10:45 AM**	**Nationwide Elevation, Land Cover, and Hydrography**		
			9:45 AM	Dr. Aparajithan Sampath	Methods for Assessing Consistency of Aerial Lidar Point Cloud Using Opensource Software Resources
			10:00 AM	Barry Miller	How Digital Elevation Model Sausage Gets Made: Understanding the Sources and the Uncertainty of the USGS Seamless DEM
			10:15 AM	Amanda Lowe	Operational Implementation of Data Acquisition for the 3D Hydrography Program
			10:30 AM	Charles Robison	The Land Change Monitoring, Assessment, and Projection (LCMAP) Initiative: 36 Years of Annual Land Cover and Surface Change
301	**10:45 AM**	**11:30 AM**	**ASPRS Annual Meeting: Installation of Officers**		
301	**11:30 AM**	**12:30 PM**	**ASPRS Panel: UAS Data Acquisition and Quality Metrics**		
302	**11:30 AM**	**12:30 PM**	**ASPRS Panel: Diversity, Equity, and Inclusion in the Geospatial Profession**		
206	**12:30 PM**	**1:00 PM**	**Networking: ASPRS Eastern Great Lakes Region Networking**		
301	**1:00 PM**	**2:00 PM**	**ASPRS Annual Meeting: Awards and Scholarships**		
301	**2:00 PM**	**3:30 PM**	**ASPRS Panel: New Airborne and Spaceborne Imaging Sensors**		
302	**2:00 PM**	**3:30 PM**	**ASPRS Panel: GIS on the Go/Future of GEOINT and AI**		
206	**2:00 PM**	**3:30 PM**	**Networking: Sustaining Members and Early Career Professionals**		
206	**3:30 PM**	**4:00 PM**	**Networking: ASPRS Heartland Region**		
206	**4:00 PM**	**4:30 PM**	**Networking: ASPRS Pacific Southwest Region**		
GW	**4:30 PM**	**5:30 PM**	**ASPRS Annual Meeting: Grand Awards**		

Panel Descriptions

MONDAY

NGS Datum Modernization Program

- **Moderator:** Dr. Qassim Abdullah, *ASPRS Working Group Chair*
- **Panelists:** Dr Dru Smith, *NOAA*; Barry Miller and Josh Nimetz, *USGS*
- **Description:** What do the upcoming changes in National Datums mean for the surveying, mapping, and GIS industries? How do these changes affect data collection and deliverables, metadata, and software standards? How should ASPRS' act to serve the needs of its members and the profession in the face of this transformation?

UAS Data Acquisition and Quality Metrics

- **Moderator:** Greg Stensaas, *ASPRS Division Director*
- **Panelists:** Dr. Ajit Sampath, *USGS*, Jacob Lopez, *ASPRS Division Director*, Dr. Riadh Munjy, CSU Fresno; Matt Vinopal and Ravi Soneja, Ayres Associates
- **Description:** PDAD and UASD are working together to create data acquisition, calibration, and management guidelines, quality assurance methods, and accuracy standards for a variety of UAS mapping use cases.

Diversity, Equity, and Inclusion in the Geospatial Profession

- **Moderator:** Chris Parrish, *ASPRS President*
- **Panelists:** Marguerite Madden and Amanda Aragon, *University of Georgia*; Denise Theunissen, *ASPRS Division Director*
- **Description:** The ASPRS DEI Committee was formally established in 2021 to address the challenges and promote the achievements of members who represent diversity in our profession. Panel members, representing Women in GIS, will discuss their journeys, share insights, and discuss ways the Committee can champion the broader goals of DEI through the geospatial community.

New Airborne and Spaceborne Imaging Sensors

- **Moderator:** Greg Stensaas, *ASPRS Division Director*
- **Panelists:** John Dombzalski, *Maxar*; Tara O'Shea, *Planet*; Malek Singer, *Teledyne Optech*; John Welter, *Hexagon*; Jeff Sloan, *USGS*
- **Description:** This session will highlight presentations from manufacturers and data providers, providing insight into future sensors and technologies.

GIS on the Go/Future of GeoINT and AI

- **Moderator:** Denise Theunissen, *ASPRS Division Director*
- **Panelists:** Robert Pitts, *NLT*; Dr. Don Widener, *BAE Systems*
- **Description:** Geospatial data is being collected and shared in real-time as part of everyday life. Artificial intelligence algorithms are used to extract useful information from these data. This session will discuss the value of time-sensitive data collection and real-time decision making.

TUESDAY

The Future of Accuracy Standards: Challenges and Opportunities

- **Moderator:** Dr. Qassim Abdullah
- **Panelists:** Milena Janiec, *USGS*; Colin Lee, *Minnesota DOT*; Mike Zoltek, *GPI*; Lorraine Amenda, *Towill*
- **Description:** ASPRS Positional Accuracy Standards and the USGS Lidar Base Specification guide mapping projects at the federal, state, and local level. They are designed to be modular and evolve with technology and user requirements. ASPRS is initiating a new Working Group activity to address best practices and guidelines in lidar survey, UAS-based survey, and field surveying techniques for very high-resolution, high accuracy data and projects that cover small areas.

New Business Opportunities for Imagery Products

- **Moderator:** Peter Becker, *Esri*
- **Panelists:** Jeff Lovin, *Woolpert*; Robert Carroll, *Vexcel*; Michael Joos, *T3*, Scott Merritt, *Surdex*; Trevis Gigliotti, *Hexagon*; Hayden Howard, *Compass*
- **Description:** Panelists will describe their views for the near future of the aerial, drone and terrestrial imagery markets. What are the expected products that the users will need? How will they be delivered? How will they be used?

2022 ASPRS Annual Conference

At Geo Week February 6-8, 2022 Denver, CO, US

Tuesday, February 8, 2022

Room	Start Time	Stop Time	Title	Start Time	Presenter Full Name	
206	**8:00AM**	**9:00AM**	**UAS Division Meeting**			
301	**8:30AM**	**10:45AM**	**ASPRS Workshop: UAS Lidar Processing**			
302	**9:00AM**	**10:00AM**	**Vegetation, Land Cover and Green Space Modeling**			
				9:00AM	Ge Pu	Riparian Vegetation Delineation and Accuracy Assessment Using Free Datasets
				9:15AM	Victor Igwe	Large Scale Classification of Wetlands Using Multi-Source Remote Sensing: Application to the State of Minnesota
				9:30AM	Amanda Aragon	Tangible Geospatial Solutions for Planning Green Spaces in Undervalued Neighborhoods in Metro Atlanta
				9:45AM	Haifa Tamiminia	Two Decades of New York State Forest Above-Ground Biomass Monitoring Using an Object-Based Random Forest Regressor
302	**10:00AM**	**10:45AM**	**Thinking Outside the Box: New Perspectives on Data**			
				10:00AM	Robert Bartlett	A 3D CAD Model is Worth a Thousand Photographs
				10:15AM	Tim Haynie	Why Deep Learning is the New Frontier for Image-Sensor Analytics and Opening New Opportunities for GIS Professionals
				10:30AM	Josh France	Changing the Focus: Imagery Collection From Vehicles
206	**8:00AM**	**9:00AM**	**Primary Data Acquistion Division Meeting**			
301	**11:30AM**	**12:30PM**	**Innovations in Lidar Mapping and Data Management I**			
				11:30AM	Jeffrey Danielson	Inland Riverine Topobathymetric Lidar Validation and Integrated Topography Models
				11:45AM	Dr. Paul Pope, CMS	Towards Automated/Semi-Automated Extraction of Surficial Faults from Lidar Data
				12:00PM	Michael Loose, CP	Simultaneous Location and Mapping Lidar for Pavement Preservation Design at PennDOT
				12:15PM	Rami Tamimi	Topographic Surveying with an iPhone
302	**11:30AM**	**12:30PM**	**Innovations in Photogrammetric Mapping**			
				11:30AM	Cody Benkelman, CMS	Web Service for Browsing USGS Photo Archives
				11:45AM	Cody Benkelman, CMS	Orthorectification of 1968 Aerial Photography Covering Glacier National Park
				12:00PM	Peter Becker	Making Imagery and Rasters Accessible for Visualization and Analysis in the Cloud
				12:15PM	Christian Stallings, CP	A Comparison of Mobile, Terrestrial, and Aerial Mapping Techniques for Transportation Projects (Preliminary Results)
208	**1:00PM**	**2:00PM**	**Posters**			
				1:00PM	Jose Pilartes Congo Jr.	Evaluation of Different GNSS Solutions on UAS-SfM Accuracy for Shoreline Surveying
				1:05PM	Isabel Garcia	DevelopMent of a Best Practices Workflow for Monitoring Natural and Built Coastal Infrastructure with a Mobile Lidar System
				1:10PM	Ali Alruzuq	Spatial–Temporal Deformations of the Lower Apalachicola River
				1:15PM	Samuel Akinnusi	Deforestation In Rondonia, Brazil
				1:20PM	Andy Egogo-Stanley	Street Guide of a section of Ado-Ekiti, Ekiti State, Nigeria.
				1:25PM	Iyanu Gbiri	Dzaleka Refugee Camp Watershed
				1:30PM	Rabia Munsaf Khan	A GIS based DRASTIC model for assessing groundwater vulnerability: A case study of Lahore
				1:35PM	Marty Marquis	Rocky Mountain Way: Best Markets for Live Music in the Rockies
				1:40PM	Peter Samson	Glacial Lake Kalapuya - Oregon's Northern Willamette Valley inundated by Ice-age Floodwaters from Glacial Lake Missoula
301	**2:00PM**	**3:30PM**	**ASPRS Panel: The Future of Accuracy Standards: Challenges and Opportunities**			
302	**2:00PM**	**3:30PM**	**ASPRS Panel: New Business Opportunities for Imagery Products**			
301	**4:15PM**	**5:30PM**	**Innovations in Lidar Mapping and Data Management II**			
				4:15PM	Mohammad Pashaei	Full-Waveform TLS Point Cloud Classification Based on Samples of Digitized Echo Waveform
				4:30PM	Howard Butler	Lidar Catalog Managment with Cloud Optimized Point Cloud (COPC) and SpatioTemporal Asset Catalogs (STAC)
				4:45PM	Howard Butler	Using Cloud Optimized GeoTIFFs for Elevation Content
				5:00PM	Minsu Kim	3D accuracy assessment of airborne lidar point cloud usingamorphous objects
				5:15PM	Rebecca Swabey	900 Million Ha of Lidar Point Cloud Data, One Global Search Engine
302	**4:30PM**	**5:30PM**	**UAS Photogrammetry and Modeling**			
				4:30PM	Dr. Aparajithan Sampath	Towards Consistent and Interoperable UAS Data
				4:45PM	Mitchell Eboigbe	Analysis of Low-Cost UAV Photogrammetry Solutions for Beach Modelling and Monitoring using the OpenSource Quantum GIS
				5:00PM	Dr. Michael Starek	Evaluation of Unmanned Aircraft Systems for Crash Reconstructions During Suboptimal Environmental Conditions
				5:15PM	Paul Manley II	Machine Learning Analysis of UAV-Based Hyperspectral Imagery for the Remote Detection of Explosives