Michael J Olsen

List of Publications by Citations

85 papers	1,761 citations	23 h-index	39 g-index
88 ext. papers	2,089 ext. citations	4.9 avg, IF	5.35 L-index

#	Paper	IF	Citations
85	A Review of LIDAR Radiometric Processing: From Ad Hoc Intensity Correction to Rigorous Radiometric Calibration. *Sensors*, **2015**, 15, 28099-128	1.5	164
84	Terrestrial Laser Scanning-Based Structural Damage Assessment. *Journal of Computing in Civil Engineering*, **2010**, 24, 264-272	2.5	163
83	Synthesis of Transportation Applications of Mobile LIDAR. *Remote Sensing*, **2013**, 5, 4652-4692	1.7	111
82	Prediction of understory vegetation cover with airborne lidar in an interior ponderosa pine forest. *Remote Sensing of Environment*, **2012**, 124, 730-741	4.9	98
81	Object Recognition, Segmentation, and Classification of Mobile Laser Scanning Point Clouds: A State of the Art Review. *Sensors*, **2019**, 19,	1.5	96
80	Comparison of Airborne and Terrestrial Lidar Estimates of Seacliff Erosion in Southern California. *Photogrammetric Engineering and Remote Sensing*, **2010**, 76, 421-427	0.7	67
79	Terrestrial Laser Scanning of Extended Cliff Sections in Dynamic Environments: Parameter Analysis. *Journal of Surveying Engineering, - ASCE*, **2009**, 135, 161-169	0.3	61
78	Evaluation of landslide susceptibility mapping techniques using lidar-derived conditioning factors (Oregon case study). *Geomatics, Natural Hazards and Risk*, **2016**, 7, 1884-1907	1.4	55
77	Liquefaction effects and associated damages observed at the Wellington CentrePort from the 2016 Kaikoura earthquake. *Bulletin of the New Zealand Society for Earthquake Engineering*, **2017**, 50, 152-173	0.3	49
76	New Automated Point-Cloud Alignment for Ground-Based Light Detection and Ranging Data of Long Coastal Sections. *Journal of Surveying Engineering, - ASCE*, **2011**, 137, 14-25	0.3	45
75	Individual snag detection using neighborhood attribute filtered airborne lidar data. *Remote Sensing of Environment*, **2015**, 163, 165-179	4.9	43
74	Efficient and robust lane marking extraction from mobile lidar point clouds. *ISPRS Journal of Photogrammetry and Remote Sensing*, **2019**, 147, 1-18	4.5	42
73	Damage Reconnaissance of Unreinforced Masonry Bearing Wall Buildings after the 2015 Gorkha, Nepal, Earthquake. *Earthquake Spectra*, **2017**, 33, 243-273	1.3	40
72	3D virtual intersection sight distance analysis using lidar data. *Transportation Research Part C: Emerging Technologies*, **2018**, 86, 563-579	2.7	38
71	Multi-scan segmentation of terrestrial laser scanning data based on normal variation analysis. *ISPRS Journal of Photogrammetry and Remote Sensing*, **2018**, 143, 233-248	4.5	31
70	Optical techniques for multiscale damage assessment. *Geomatics, Natural Hazards and Risk*, **2013**, 4, 49-70	1.4	31
69	Performance of Medium-to-High Rise Reinforced Concrete Frame Buildings with Masonry Infill in the 2015 Gorkha, Nepal, Earthquake. *Earthquake Spectra*, **2017**, 33, 197-218	1.3	30

68	A simplified three-dimensional shallow landslide susceptibility framework considering topography and seismicity. *Landslides*, **2017**, 14, 1677-1697	2	27
67	To Fill or Not to Fill: Sensitivity Analysis of the Influence of Resolution and Hole Filling on Point Cloud Surface Modeling and Individual Rockfall Event Detection. *Remote Sensing*, **2015**, 7, 12103-12134	1.7	27
66	Contour Connection Method for automated identification and classification of landslide deposits. *Computers and Geosciences*, **2015**, 74, 27-38	1.5	25
65	Fast ground filtering for TLS data via Scanline Density Analysis. *ISPRS Journal of Photogrammetry and Remote Sensing*, **2017**, 129, 226-240	4.5	23
64	Rockfall Activity Index (RAI): A lidar-derived, morphology-based method for hazard assessment. *Engineering Geology*, **2017**, 221, 184-192	2.2	23
63	Evaluation of the influence of source and spatial resolution of DEMs on derivative products used in landslide mapping. *Geomatics, Natural Hazards and Risk*, **2016**, 7, 1835-1855	1.4	23
62	In Situ Change Analysis and Monitoring through Terrestrial Laser Scanning. *Journal of Computing in Civil Engineering*, **2015**, 29, 04014040	2.5	22
61	A Simplified, Object-Based Framework for Efficient Landslide Inventorying Using LIDAR Digital Elevation Model Derivatives. *Remote Sensing*, **2019**, 11, 303	1.7	21
60	Policy processes and recommendations for Unmanned Aerial System operations near roadways based on visual attention of drivers. *Transportation Research Part C: Emerging Technologies*, **2019**, 108, 207-222	2.7	17
59	Evaluation of Technologies for Road Profile Capture, Analysis, and Evaluation. *Journal of Surveying Engineering, - ASCE*, **2015**, 141, 04014011	0.3	17
58	Influence of both anisotropic friction and cohesion on the formation of tension cracks and stability of slopes. *Engineering Geology*, **2019**, 249, 31-44	2.2	17
57	Automated and efficient powerline extraction from laser scanning data using a voxel-based subsampling with hierarchical approach. *ISPRS Journal of Photogrammetry and Remote Sensing*, **2020**, 163, 343-361	4.5	14
56	Tsunami Modeling, Fluid Load Simulation, and Validation Using Geospatial Field Data. *Journal of Structural Engineering*, **2014**, 140,	1.4	14
55	Post-Earthquake and Tsunami 3D Laser Scanning Forensic Investigations **2012**,		14
54	To Level or Not to Level: Laser Scanner Inclination Sensor Stability and Application. *Journal of Surveying Engineering, - ASCE*, **2012**, 138, 117-125	0.3	13
53	An Efficient Framework for Mobile Lidar Trajectory Reconstruction and Mo-norvana Segmentation. *Remote Sensing*, **2019**, 11, 836	1.7	12
52	Efficient terrestrial laser scan segmentation exploiting data structure. *ISPRS Journal of Photogrammetry and Remote Sensing*, **2016**, 119, 135-150	4.5	12
51	Suitability of structure from motion for rock-slope assessment. *Photogrammetric Record*, **2018**, 33, 217-242	2.4	12

50	Automated quantification of distributed landslide movement using circular tree trunks extracted from terrestrial laser scan data. *Computers and Geosciences*, **2014**, 67, 31-39	1.5	11
49	Mitigating coastal landslide damage. *Science*, **2017**, 357, 981-982	10	11
48	TopCAT Topographical Compartment Analysis Tool to analyze seacliff and beach change in GIS. *Computers and Geosciences*, **2012**, 45, 284-292	1.5	11
47	Lateral Spread Hazard Mapping of the Northern Salt Lake Valley, Utah, for a M7.0 Scenario Earthquake. *Earthquake Spectra*, **2007**, 23, 95-113	1.3	11
46	Case study: Post-earthquake model updating of a heritage pagoda masonry temple using AEM and FEM. *Engineering Structures*, **2020**, 206, 109950	2	9
45	Alternative Information Signs: Evaluation of Driver Comprehension and Visual Attention. *Journal of Transportation Engineering*, **2016**, 142, 04015036		9
44	Morphological Expressions of Coastal Cliff Erosion Processes in San Diego County. *Journal of Coastal Research*, **2016**, 76, 174-184	0.5	9
43	Tale of Two RTNs: Rigorous Evaluation of Real-Time Network GNSS Observations. *Journal of Surveying Engineering, - ASCE*, **2018**, 144, 05018001	0.3	8
42	The impact of rockfalls on dwellings during the 2011 Christchurch, New Zealand, earthquakes. *Landslides*, **2018**, 15, 31-42	2	8
41	Superpixel Clustering and Planar Fit Segmentation of 3D LIDAR Point Clouds **2013**,		8
40	Using terrestrial laser scanning to support ecological research in the rocky intertidal zone. *Journal of Coastal Conservation*, **2014**, 18, 701-714	0.7	8
39	Dense Point Cloud Quality Factor as Proxy for Accuracy Assessment of Image-Based 3D Reconstruction. *Journal of Surveying Engineering, - ASCE*, **2021**, 147, 04020021	0.3	8
38	Performance-based, seismically-induced landslide hazard mapping of Western Oregon. *Soil Dynamics and Earthquake Engineering*, **2017**, 103, 38-54	1.3	7
37	Hinged, Pseudo-Grid Triangulation Method for Long, Near-Linear Cliff Analyses. *Journal of Surveying Engineering, - ASCE*, **2013**, 139, 105-109	0.3	6
36	MULTI-PASS APPROACH FOR MOBILE TERRESTRIAL LASER SCANNING. *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences*,II-3/W5, 105-112		6
35	Evaluation of Uncrewed Aircraft Systems Lidar Data Quality. *ISPRS International Journal of Geo-Information*, **2019**, 8, 532	1.1	6
34	Efficient segment-based ground filtering and adaptive road detection from mobile light detection and ranging (LiDAR) data. *International Journal of Remote Sensing*, **2021**, 42, 3633-3659	1.2	6
33	Estimates of three-dimensional rupture surface geometry of deep-seated landslides using landslide inventories and high-resolution topographic data. *Geomorphology*, **2020**, 367, 107332	1.3	5

32	Detecting sudden moving objects in a series of digital images with different exposure times. *Computer Vision and Image Understanding*, **2017**, 158, 17-30	1.1	4
31	Fate and Transport of Seacliff Failure Sediment in Southern California. *Journal of Coastal Research*, **2016**, 76, 185-199	0.5	4
30	Role of BIM and 3D Laser Scanning on Job sites from the Perspective of Construction Project Management Personnel **2016**,		4
29	Analysis of the Multipass Approach for Collection and Processing of Mobile Laser Scan Data. *Journal of Surveying Engineering, - ASCE*, **2017**, 143, 04017004	0.3	4
28	Rapid Response to Seacliff Erosion in San Diego County, California Using Terrestrial LIDAR **2008**,		4
27	Quantification of Surface Roughness Using Laser Scanning with Application to the Frictional Resistance of Sand-Timber Pile Interfaces. *Geotechnical Testing Journal*, **2020**, 43, 20180384	0.4	4
26	A Wave of New Information: LIDAR Investigations of the 2009 Samoan Tsunami **2011**,		4
25	Geologic Trends in Shear Strength Properties Inferred Through Three-Dimensional Back Analysis of Landslide Inventories. *Journal of Geophysical Research F: Earth Surface*, **2020**, 125, e2019JF005461	0.9	4
24	Interactive Visualization of 3D Coordinate Uncertainties in Terrestrial Laser - Scanning Point Clouds Using OpenGL Shader Language. *Journal of Surveying Engineering, - ASCE*, **2019**, 145, 04018012	0.3	4
23	Quantifying the Sensitivity of Progressive Landslide Movements to Failure Geometry, Undercutting Processes and Hydrological Changes. *Journal of Geophysical Research F: Earth Surface*, **2019**, 124, 616-638	0.9	4
22	Efficient Planning and Acquisition of Terrestrial Laser Scanning-Derived Digital Elevation Models: Proof of Concept Study. *Journal of Surveying Engineering, - ASCE*, **2019**, 145, 06018003	0.3	4
21	An Assessment of UAS-Based Photogrammetry for Civil Integrated Management (CIM) Modeling of Pipes **2017**,		3
20	VR-based visual analytics of LIDAR data for cliff erosion assessment **2007**,		3
19	Lateral spreading within a limit equilibrium framework: Newmark sliding blocks with degrading yield accelerations. *Geotechnique*, **2018**, 68, 699-712	1.1	3
18	Limit Equilibrium Stability Analysis of Layered Slopes: a Generalized Approach. *Transportation Infrastructure Geotechnology*, **2018**, 5, 366-378	0.7	3
17	Mobile Lidar Guidelines to Support Utility Asset Management along Highways **2016**,		2
16	FAST EDGE DETECTION AND SEGMENTATION OF TERRESTRIAL LASER SCANS THROUGH NORMAL VARIATION ANALYSIS. *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences*,IV-2/W4, 51-57		2
15	A Geotechnical Database for Utah (GeoDU) enabling quantification of geotechnical properties of surficial geologic units for geohazard assessments. *Earthquake Spectra*, **2020**, 36, 422-451	1.3	2

14	Reconstructing the Velocity and Deformation of a Rapid Landslide Using Multiview Video. *Journal of Geophysical Research F: Earth Surface*, **2020**, 125, e2019JF005348	0.9	2
13	Data Gap Classification for Terrestrial Laser Scanning-Derived Digital Elevation Models. *ISPRS International Journal of Geo-Information*, **2020**, 9, 749	1.1	2
12	Spatial distribution of yield accelerations and permanent displacements: A diagnostic tool for assessing seismic slope stability. *Soil Dynamics and Earthquake Engineering*, **2019**, 126, 105811	1.3	1
11	Probabilistic liquefaction-induced lateral spread hazard mapping and its application to Utah County, Utah. *Engineering Geology*, **2018**, 237, 76-91	2.2	1
10	Geospatial Characterization of Causative Factors for Recent Landslides in the Oregon Coast Range **2013**,		1
9	Discussion of Use of terrestrial laser scanning for the characterization of retrogressive landslides in sensitive clay and rotational landslides in river banks Appears in the Canadian Geotechnical Journal: 46(12): 1379 1390.. *Canadian Geotechnical Journal*, **2010**, 47, 1164-1168	0.9	1
8	Linking Surveying, Engineering, GIS, and Computer Science into Geomatics through a Digital Terrain Modeling Course. *Journal of Surveying Engineering, - ASCE*, **2011**, 137, 37-39	0.3	1
7	Multihazard Damage and Loss Assessment of Bridges in a Highway Network Subjected to Earthquake and Tsunami Hazards. *Natural Hazards Review*, **2021**, 22, 05021002	0.8	1
6	Approximations, Errors, and Misconceptions in the Use of Map Projections. *Mathematical Problems in Engineering*, **2021**, 2021, 1-12	0.5	1
5	SlideSim: 3D Landslide Displacement Monitoring through a Physics-Based Simulation Approach to Self-Supervised Learning. *Remote Sensing*, **2022**, 14, 2644	1.7	1
4	Lateral spreading within a limit equilibrium framework: Newmark's sliding blocks with degrading yield accelerations. *Geotechnique*, **2020**, 70, 559-561	1.1	
3	Prepare for Cascadia's next earthquake. *Science*, **2018**, 362, 1007	10	
2	Mobile Terrestrial Laser Scanning and Mapping **2022**, 303-340		
1	Terrestrial Laser Scanning **2022**, 233-302		