

# Michael J Olsen

## List of Publications by Year in descending order

Source: [//exaly.com/author-pdf/3827071/publications.pdf](https://exaly.com/author-pdf/3827071/publications.pdf)

Version: 2024-02-01

94  
papers

3,378  
citations

168237

27  
h-index

132586

55  
g-index

100  
all docs

100  
docs citations

100  
times ranked

3965  
citing authors

#	ARTICLE	IF	CITATIONS
1	Artificial Intelligence in Precision Cardiovascular Medicine. Journal of the American College of Cardiology, 2017, 69, 2657-2664.	5.6	694
2	A Review of LIDAR Radiometric Processing: From Ad Hoc Intensity Correction to Rigorous Radiometric Calibration. Sensors, 2015, 15, 28099-28128.	4.0	256
3	Terrestrial Laser Scanning-Based Structural Damage Assessment. Journal of Computing in Civil Engineering, 2010, 24, 264-272.	4.9	228
4	Object Recognition, Segmentation, and Classification of Mobile Laser Scanning Point Clouds: A State of the Art Review. Sensors, 2019, 19, 810.	4.0	178
5	Synthesis of Transportation Applications of Mobile LIDAR. Remote Sensing, 2013, 5, 4652-4692.	4.1	147
6	Prediction of understory vegetation cover with airborne lidar in an interior ponderosa pine forest. Remote Sensing of Environment, 2012, 124, 730-741.	11.1	132
7	Comparison of Airborne and Terrestrial Lidar Estimates of Seacliff Erosion in Southern California. Photogrammetric Engineering and Remote Sensing, 2010, 76, 421-427.	0.7	81
8	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.	0.5	77
9	Evaluation of landslide susceptibility mapping techniques using lidar-derived conditioning factors (Oregon case study). Geomatics, Natural Hazards and Risk, 2016, 7, 1884-1907.	4.4	69
10	Efficient and robust lane marking extraction from mobile lidar point clouds. ISPRS Journal of Photogrammetry and Remote Sensing, 2019, 147, 1-18.	11.3	69
11	Terrestrial Laser Scanning of Extended Cliff Sections in Dynamic Environments: Parameter Analysis. Journal of Surveying Engineering, - ASCE, 2009, 135, 161-169.	1.8	68
12	Damage Reconnaissance of Unreinforced Masonry Bearing Wall Buildings after the 2015 Gorkha, Nepal, Earthquake. Earthquake Spectra, 2017, 33, 243-273.	3.0	57
13	Individual snag detection using neighborhood attribute filtered airborne lidar data. Remote Sensing of Environment, 2015, 163, 165-179.	11.1	56
14	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.	1.8	54
15	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.	3.0	54
16	3D virtual intersection sight distance analysis using lidar data. Transportation Research Part C: Emerging Technologies, 2018, 86, 563-579.	7.7	53
17	Multi-scan segmentation of terrestrial laser scanning data based on normal variation analysis. ISPRS Journal of Photogrammetry and Remote Sensing, 2018, 143, 233-248.	11.3	49
18	A simplified three-dimensional shallow landslide susceptibility framework considering topography and seismicity. Landslides, 2017, 14, 1677-1697.	5.6	46

#	ARTICLE	IF	CITATIONS
19	Evaluation of the influence of source and spatial resolution of DEMs on derivative products used in landslide mapping. <i>Geomatics, Natural Hazards and Risk</i> , 2016, 7, 1835-1855.	4.4	41
20	Automated and efficient powerline extraction from laser scanning data using a voxel-based subsampling with hierarchical approach. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2020, 163, 343-361.	11.3	39
21	Influence of both anisotropic friction and cohesion on the formation of tension cracks and stability of slopes. <i>Engineering Geology</i> , 2019, 249, 31-44.	6.4	38
22	A linearly approximated iterative Gaussian decomposition method for waveform LiDAR processing. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2017, 129, 200-211.	11.3	34
23	Optical techniques for multiscale damage assessment. <i>Geomatics, Natural Hazards and Risk</i> , 2013, 4, 49-70.	4.4	33
24	Contour Connection Method for automated identification and classification of landslide deposits. <i>Computers and Geosciences</i> , 2015, 74, 27-38.	4.3	33
25	Rockfall Activity Index (RAI): A lidar-derived, morphology-based method for hazard assessment. <i>Engineering Geology</i> , 2017, 221, 184-192.	6.4	33
26	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. <i>Remote Sensing</i> , 2015, 7, 12103-12134.	4.1	31
27	Fast ground filtering for TLS data via Scanline Density Analysis. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2017, 129, 226-240.	11.3	29
28	Policy processes and recommendations for Unmanned Aerial System operations near roadways based on visual attention of drivers. <i>Transportation Research Part C: Emerging Technologies</i> , 2019, 108, 207-222.	7.7	28
29	In Situ Change Analysis and Monitoring through Terrestrial Laser Scanning. <i>Journal of Computing in Civil Engineering</i> , 2015, 29, .	4.9	27
30	A Simplified, Object-Based Framework for Efficient Landslide Inventorying Using LIDAR Digital Elevation Model Derivatives. <i>Remote Sensing</i> , 2019, 11, 303.	4.1	27
31	Post-Earthquake and Tsunami 3D Laser Scanning Forensic Investigations. , 2012, , .		22
32	Dense Point Cloud Quality Factor as Proxy for Accuracy Assessment of Image-Based 3D Reconstruction. <i>Journal of Surveying Engineering, - ASCE</i> , 2021, 147, .	1.8	22
33	Evaluation of Technologies for Road Profile Capture, Analysis, and Evaluation. <i>Journal of Surveying Engineering, - ASCE</i> , 2015, 141, .	1.8	21
34	An Efficient Framework for Mobile Lidar Trajectory Reconstruction and Mo-norvana Segmentation. <i>Remote Sensing</i> , 2019, 11, 836.	4.1	19
35	Case study: Post-earthquake model updating of a heritage pagoda masonry temple using AEM and FEM. <i>Engineering Structures</i> , 2020, 206, 109950.	5.4	19
36	Tsunami Modeling, Fluid Load Simulation, and Validation Using Geospatial Field Data. <i>Journal of Structural Engineering</i> , 2014, 140, .	3.5	18

#	ARTICLE	IF	CITATIONS
37	Suitability of structure from motion for rock slope assessment. Photogrammetric Record, 2018, 33, 217-242.	0.4	18
38	Terrestrial Laser Scanning. , 2022, , 233-302.		17
39	TopCAT – Topographical Compartment Analysis Tool to analyze seacliff and beach change in GIS. Computers and Geosciences, 2012, 45, 284-292.	4.3	16
40	Tale of Two RTNs: Rigorous Evaluation of Real-Time Network GNSS Observations. Journal of Surveying Engineering, - ASCE, 2018, 144, .	1.8	16
41	Efficient terrestrial laser scan segmentation exploiting data structure. ISPRS Journal of Photogrammetry and Remote Sensing, 2016, 119, 135-150.	11.3	15
42	To Level or Not to Level: Laser Scanner Inclinometer Sensor Stability and Application. Journal of Surveying Engineering, - ASCE, 2012, 138, 117-125.	1.8	14
43	Performance-based, seismically-induced landslide hazard mapping of Western Oregon. Soil Dynamics and Earthquake Engineering, 2017, 103, 38-54.	3.9	14
44	Multihazard Damage and Loss Assessment of Bridges in a Highway Network Subjected to Earthquake and Tsunami Hazards. Natural Hazards Review, 2021, 22, .	1.6	14
45	Superpixel Clustering and Planar Fit Segmentation of 3D LIDAR Point Clouds. , 2013, , .		13
46	Automated quantification of distributed landslide movement using circular tree trunks extracted from terrestrial laser scan data. Computers and Geosciences, 2014, 67, 31-39.	4.3	13
47	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.	2.8	13
48	Estimates of three-dimensional rupture surface geometry of deep-seated landslides using landslide inventories and high-resolution topographic data. Geomorphology, 2020, 367, 107332.	2.7	13
49	Lateral Spread Hazard Mapping of the Northern Salt Lake Valley, Utah, for a M7.0 Scenario Earthquake. Earthquake Spectra, 2007, 23, 95-113.	3.0	12
50	Morphological Expressions of Coastal Cliff Erosion Processes in San Diego County. Journal of Coastal Research, 2016, 76, 174-184.	0.3	12
51	Mitigating coastal landslide damage. Science, 2017, 357, 981-982.	13.9	12
52	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.	3.0	12
53	Using terrestrial laser scanning to support ecological research in the rocky intertidal zone. Journal of Coastal Conservation, 2014, 18, 701-714.	1.6	11
54	Evaluation of Uncrewed Aircraft Systems™ Lidar Data Quality. ISPRS International Journal of Geo-Information, 2019, 8, 532.	2.9	11

#	ARTICLE	IF	CITATIONS
55	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.	2.8	11
56	The impact of rockfalls on dwellings during the 2011 Christchurch, New Zealand, earthquakes. Landslides, 2018, 15, 31-42.	5.6	10
57	Alternative Information Signs: Evaluation of Driver Comprehension and Visual Attention. Journal of Transportation Engineering, 2016, 142, 04015036.	0.9	9
58	MULTI-PASS APPROACH FOR MOBILE TERRESTRIAL LASER SCANNING. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, II-3/W5, 105-112.	0.0	9
59	Role of BIM and 3D Laser Scanning on Job sites from the Perspective of Construction Project Management Personnel. , 2016, , .		8
60	Spatial distribution of yield accelerations and permanent displacements: A diagnostic tool for assessing seismic slope stability. Soil Dynamics and Earthquake Engineering, 2019, 126, 105811.	3.9	8
61	Rockfall Activity Rates Before, During and After the 2010/2011 Canterbury Earthquake Sequence. Journal of Geophysical Research F: Earth Surface, 2022, 127, .	2.8	8
62	Hinged, Pseudo-Grid Triangulation Method for Long, Near-Linear Cliff Analyses. Journal of Surveying Engineering, - ASCE, 2013, 139, 105-109.	1.8	7
63	Fate and Transport of Seacliff Failure Sediment in Southern California. Journal of Coastal Research, 2016, 76, 185-199.	0.3	7
64	Lateral spreading within a limit equilibrium framework: Newmark sliding blocks with degrading yield accelerations. Geotechnique, 2018, 68, 699-712.	4.2	7
65	Limit Equilibrium Stability Analysis of Layered Slopes: a Generalized Approach. Transportation Infrastructure Geotechnology, 2018, 5, 366-378.	3.0	7
66	Data Gap Classification for Terrestrial Laser Scanning-Derived Digital Elevation Models. ISPRS International Journal of Geo-Information, 2020, 9, 749.	2.9	7
67	SlideSim: 3D Landslide Displacement Monitoring through a Physics-Based Simulation Approach to Self-Supervised Learning. Remote Sensing, 2022, 14, 2644.	4.1	7
68	New Structural Complexity Metrics for Forests from Single Terrestrial Lidar Scans. Remote Sensing, 2023, 15, 145.	4.1	7
69	Detecting sudden moving objects in a series of digital images with different exposure times. Computer Vision and Image Understanding, 2017, 158, 17-30.	5.0	6
70	An Assessment of UAS-Based Photogrammetry for Civil Integrated Management (CIM) Modeling of Pipes. , 2017, , .		6
71	Interactive Visualization of 3D Coordinate Uncertainties in Terrestrial Laser <scp>-</scp> Scanning Point Clouds Using OpenGL Shader Language. Journal of Surveying Engineering, - ASCE, 2019, 145, .	1.8	6
72	Inversions of landslide strength as a proxy for subsurface weathering. Nature Communications, 2022, 13, .	13.2	6

#	ARTICLE	IF	CITATIONS
73	Rapid Response to Seacliff Erosion in San Diego County, California Using Terrestrial LIDAR. , 2008, , .		5
74	Analysis of the Multipass Approach for Collection and Processing of Mobile Laser Scan Data. Journal of Surveying Engineering, - ASCE, 2017, 143, .	1.8	5
75	FAST EDGE DETECTION AND SEGMENTATION OF TERRESTRIAL LASER SCANS THROUGH NORMAL VARIATION ANALYSIS. ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 0, IV-2/W4, 51-57.	0.0	5
76	VR-based visual analytics of LIDAR data for cliff erosion assessment. , 2007, , .		4
77	Efficient Planning and Acquisition of Terrestrial Laser Scanningâ€œDerived Digital Elevation Models: Proof of Concept Study. Journal of Surveying Engineering, - ASCE, 2019, 145, .	1.8	4
78	A Geotechnical Database for Utah (GeoDU) enabling quantification of geotechnical properties of surficial geologic units for geohazard assessments. Earthquake Spectra, 2020, 36, 422-451.	3.0	4
79	Approximations, Errors, and Misconceptions in the Use of Map Projections. Mathematical Problems in Engineering, 2021, 2021, 1-12.	1.2	4
80	A Wave of New Information: LIDAR Investigations of the 2009 Samoan Tsunami. , 2011, , .		4
81	Discussion of â€œUse of terrestrial laser scanning for the characterization of retrogressive landslides in sensitive clay and rotational landslides in river banksâ€œAppears in the Canadian Geotechnical Journal: <b>46</b>(12): 1379â€“1390.. Canadian Geotechnical Journal, 2010, 47, 1164-1168.	2.9	3
82	Probabilistic liquefaction-induced lateral spread hazard mapping and its application to Utah County, Utah. Engineering Geology, 2018, 237, 76-91.	6.4	3
83	Reconstructing the Velocity and Deformation of a Rapid Landslide Using Multiview Video. Journal of Geophysical Research F: Earth Surface, 2020, 125, e2019JF005348.	2.8	3
84	Mobile Lidar Guidelines to Support Utility Asset Management along Highways. , 2016, , .		2
85	LADI: Landslide displacement interpolation through a spatial-temporal Kalman filter. Computers and Geosciences, 2023, 180, 105451.	4.3	2
86	Linking Surveying, Engineering, GIS, and Computer Science into Geomatics through a Digital Terrain Modeling Course. Journal of Surveying Engineering, - ASCE, 2011, 137, 37-39.	1.8	1
87	Geospatial Characterization of Causative Factors for Recent Landslides in the Oregon Coast Range. , 2013, , .		1
88	Prepare for Cascadia's next earthquake. Science, 2018, 362, 1007-1007.	13.9	1
89	Lateral spreading within a limit equilibrium framework: Newmark's sliding blocks with degrading yield accelerations. Geotechnique, 2020, 70, 559-561.	4.2	1
90	Forecasting post-earthquake rockfall activity. Journal of Applied Geodesy, 2022, , .	1.1	1

#	ARTICLE	IF	CITATIONS
91	Mobile Terrestrial Laser Scanning and Mapping. , 2022, , 303-340.		0
92	Lidar-Derived Rockfall Inventoryâ€™An Analysis of the Geomorphic Evolution of Rock Slopes and Modifying the Rockfall Activity Index (RAI). Remote Sensing, 2023, 15, 4223.	4.1	0
93	Virtual ADA Compliance Assessment: Mimicking Digital Inclinometers to Measure Slopes within Point Clouds. Journal of Surveying Engineering. - ASCE, 2024, 150, .	1.8	0
94	150Âyears of the <i>Journal of Surveying Engineering</i>. Journal of Surveying Engineering, - ASCE, 2024, 150, .	1.8	0