

Peer-Reviewed and Other Publications based on OpenTopography Facility Support

Updated: January 31, 2018

This is a bibliography of peer-reviewed publications and other published documents (reports, theses, etc.) enabled by data access, online data processing, and education and training materials available through the National Science Foundation supported OpenTopography Facility (including the GEON Lidar Workflow, the predecessor to OpenTopography) since about 2006.

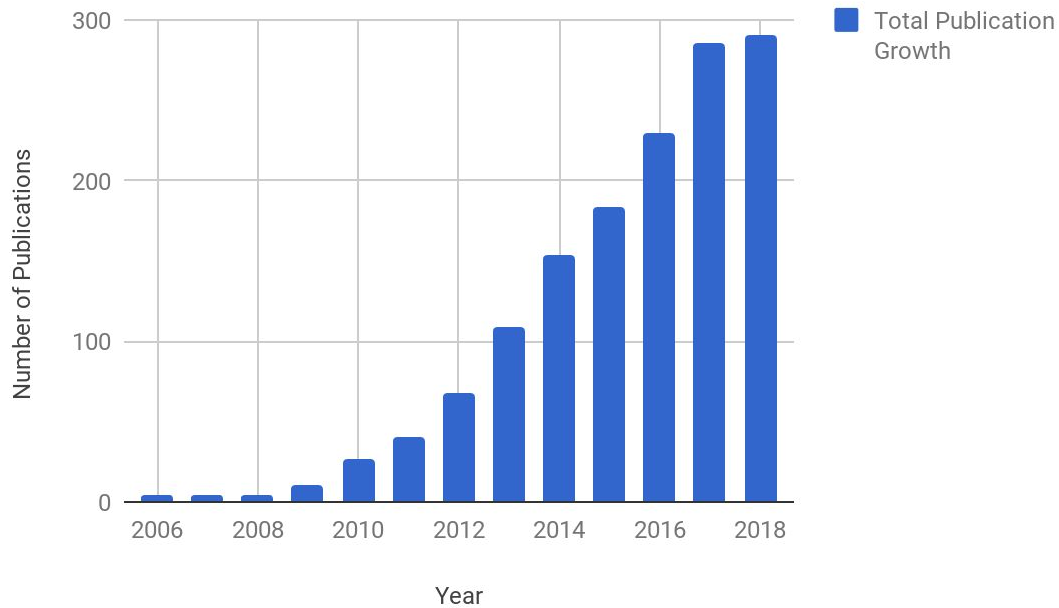
The impact of OpenTopography spans numerous disciplines spanning the earth and natural sciences, remote sensing, computer science, and geographic information science. OpenTopography has also enabled technical reports and other publications from government agencies and commercial-sector organizations.

The bibliography compiled below is based on Web of Science and Google Scholar searches as well as reports from members of the OpenTopography community. Citations are in GSA format with accompanying DOIs and an italicized description of what subject, application and/or dataset was used in the publication.

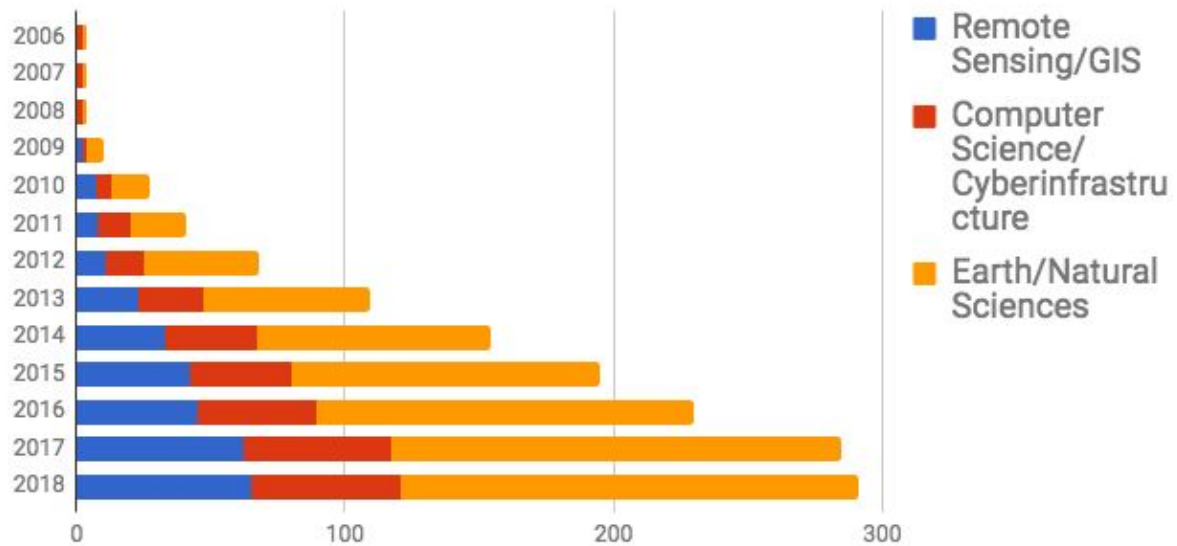
Total Peer-Reviewed Publications: 233

Total Other Publications: 58

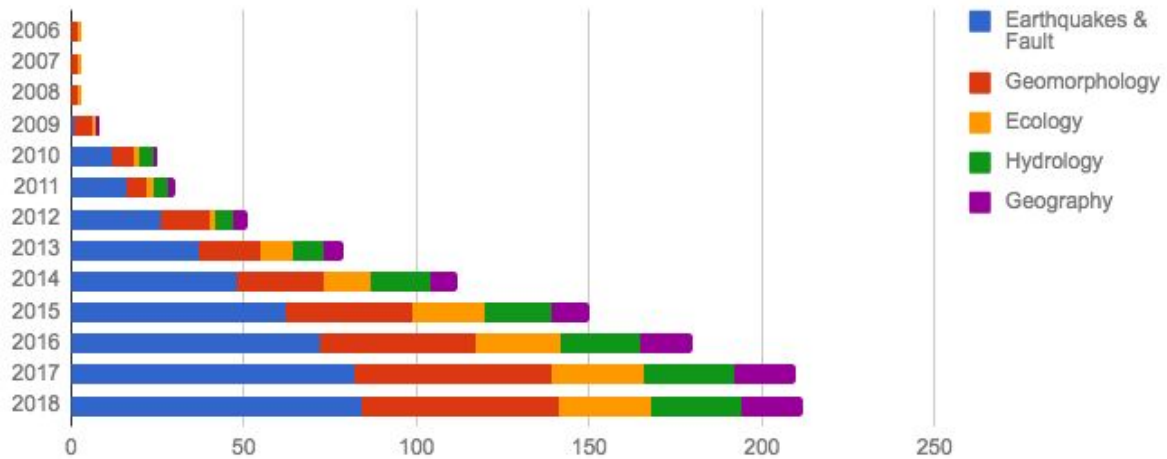
OpenTopography Publication Growth by Year



Publications by Science Domain



Publication by Disciplines within Earth Science



Peer Reviewed Publications

2018

1. Fisher, B.A., Aufdenkampe, A.K., Yoo, K., Aalto, R.E. and Marquard, J., 2018. Soil carbon redistribution and organo-mineral associations after lateral soil movement and mixing in a first-order forest watershed. *Geoderma*, 319, pp.142-155.

- i. *Earth Science (Specific Dataset)*
- 2.
- 3. Li, Z., Hodgson, M.E. and Li, W., 2018. A general-purpose framework for parallel processing of large-scale LiDAR data. *International Journal of Digital Earth*, 11(1), pp.26-47.
 - i. *Computer Science (Mentions OpenTopography as a resource)*
 - ii.
- 4. Wu, B., Yu, B., Wu, Q., Chen, Z., Yao, S., Huang, Y. and Wu, J., 2018. An Extended Minimum Spanning Tree method for characterizing local urban patterns. *International Journal of Geographical Information Science*, 32(3), pp.450-475.
 - i. *Remote Sensing (Mentions OpenTopography as a resource)*
 - ii.
- 5. Zhao, X., Su, Y., Hu, T., Chen, L., Gao, S., Wang, R., Jin, S. and Guo, Q., 2018. A global corrected SRTM DEM product for vegetated areas. *Remote Sensing Letters*, 9(4), pp.393-402.
 - i. *Remote Sensing (Shuttle Radar Mission Topography)*

2017

1. Aburto, F., & Southard, R. 2017. Refined Geomorphologic Interpretation of Glacial Deposits using Combined Soil Development Indices and LiDAR Terrain Analysis. *Soil Science Society of America Journal*.
Earth Science
2. Beeson, H.W., McCoy, S.W. and Keen-Zebert, A., 2017. Geometric disequilibrium of river basins produces long-lived transient landscapes. *Earth and Planetary Science Letters*, 475, pp.34-43.
Earth Science (Shuttle Radar Topography Mission)
3. Berger, C., Rosentreter, J., Voltersen, M., Baumgart, C., Schmullius, C. and Hese, S., 2017. Spatio-temporal analysis of the relationship between 2D/3D urban site characteristics and land surface temperature. *Remote Sensing of Environment*, v. 193, p. 225-243.
Remote Sensing (Mentions OpenTopography as a resource)
4. Bubeck, A., Walker, R., Imber, J., & MacLeod, C., 2017. Controls on the surface expression of growth faults in volcanic rift zones. Retrieved from eartharxiv.org/zmt54.
Earth Science (Hawaii Big Island Survey, 2009)
5. Chung, Y. C., Su, I. F., Lee, C., & Gu, G., 2017. An efficient distributed range query processing algorithm on LiDAR data. In *Ubi-media Computing and Workshops (Ubi-Media), 2017 10th International Conference on* (pp. 1-6). IEEE.
Computer Science (Mentions OpenTopography as a resource)
6. Clark, K.J., Nissen, E.K., Howarth, J.D., Hamling, I.J., Mountjoy, J.J., Ries, W.F., Jones, K., Goldstien, S., Cochran, U.A., Villamor, P. and Hreinsdóttir, S., 2017. Highly variable coastal

deformation in the 2016 M W 7.8 Kaikōura earthquake reflects rupture complexity along a transpressional plate boundary. *Earth and Planetary Science Letters*.

Earth Science

7. Croda, R. M. C., & Romero, D. E. G. Development of Injuries Prevention Policies in Mexico: A Big Data Approach. *International Journal of Interactive Multimedia and Artificial Intelligence*, (In Press).

Computer Science (Mentions OpenTopography as a resource)

8. Davy, P., Croissant, T. and Lague, D., 2017. A precipiton method to calculate river hydrodynamics, with applications to flood prediction, landscape evolution models, and braiding instabilities. *Journal of Geophysical Research: Earth Surface*.

Earth Science (PG&E Diablo Canyon, CA, 2010)

9. Deibe, D., Amor, M., Doallo, R., Miranda, D., & Cordero, M., 2017. GVLiDAR: an interactive web-based visualization framework to support geospatial measures on lidar data. *International Journal of Remote Sensing*, v. 38(3), p. 827-849.

Remote Sensing

10. Donnellan, A., Arrowsmith, R., & DeLong, S., 2017. Spatio-Temporal Mapping of Plate Boundary Faults in California Using Geodetic Imaging. *Geosciences*, v. 7(1), p. 15.

Earth Science (El Mayor-Cucupah, 2014 Napa)

11. Ekhtari, N., & Glennie, C., 2017. High-Resolution Mapping of Near-Field Deformation With Airborne Earth Observation Data, a Comparison Study. *IEEE Transactions on Geoscience and Remote Sensing*.

Remote Sensing (Napa)

12. Favalli, M. and Fornaciai, A., 2017. Visualization and comparison of DEM-derived parameters. Application to volcanic areas. *Geomorphology*.

Earth Science (Mentions OpenTopography as a resource)

13. Fitriani, N.A., 2017. Lidar image segmentation using K-means algorithm. *Scientific Journal of Mathematics*, v. 2(6), .

Computer Science (Mentions OpenTopography as a resource)

14. Fountain, A.G., Fernandez-Diaz, J.C., Obryk, M., Levy, J., Gooseff, M., Van Horn, D.J., Morin, P. and Shrestha, R., 2017. High-resolution elevation mapping of the McMurdo Dry Valleys, Antarctica, and surrounding regions. *Earth System Science Data*, 9(2), p.435.

Earth Science (McMurdo, Antarctica, 2014-2015)

15. Green, G.M., Ahearn, S.C. and Ni-Meister, W., 2017. Downscaling on Demand: Examples in Forest Canopy Mapping. Integrating Scale in Remote Sensing and GIS, p. 229.
Earth Science
16. Hobbs, S.W., Paull, D.J. and Clarke, J.D.A., 2017. Testing the water hypothesis: Quantitative morphological analysis of terrestrial and martian mid-latitude gullies. *Geomorphology*.
Earth Science
17. Johnson, B.E., Noble, P.J., Heyvaert, A.C., Chandra, S. and Karlin, R., 2017. Anthropogenic and climatic influences on the diatom flora within the Fallen Leaf Lake watershed, Lake Tahoe Basin, California over the last millennium. *Journal of Paleolimnology*, p.1-15.
Earth Science (Lake Tahoe 2010)
18. Kasprak, A., Caster, J., Bangen, S. G., & Sankey, J. B., 2017. Geomorphic Process from Topographic Form: Automating the Interpretation of Repeat Survey Data in River Valleys. *Earth Surface Processes and Landforms*.
Earth Science (Mentions OpenTopography as a resource)
19. Korzeniowska, K., Pfeifer, N., & Landtwing, S., 2017. Mapping gullies, dunes, lava fields, and landslides via surface roughness. *Geomorphology*.
Earth Science (North Sister, OR, 2008)
20. Kulawiak, M., & Kulawiak, M., 2017. Application of Web-GIS for Dissemination and 3D Visualization of Large-Volume LiDAR Data. In *The Rise of Big Spatial Data*, p. 1-12.
Remote Sensing
21. Lombardo, V., Piana, F., Mimmo, D., Mensa, E., & Radicioni, D. P., 2017. Semantic Models for the Geological Mapping Process. In *Conference of the Italian Association for Artificial Intelligence*, p. 295-306. Springer, Cham.
Remote Sensing (Mentions OpenTopography as a resource)
22. Lynne, B. Y., Heasler, H., Jaworowski, C., Foley, D., Smith, I. J., Smith, G. J., & Sahdarani, D., 2017. Using ground penetrating radar, scanning electron microscopy and thermal infrared imagery to document near-surface hydrological changes in the old faithful Geysers area, Yellowstone National Park, USA. *Geothermics*, v. 68, p. 33-53.
Earth Science (Yellowstone, 2008)
23. Mackenzie, D. and Elliott, A., 2017. Untangling tectonic slip from the potentially misleading effects of landform geometry. *Geosphere*, pp. GES01386-1.
Earth Science (El Mayor-Cucapah terrestrial lidar 2010)
24. Marcatti, G.E., 2017. Optimization of the geometric tracing of forest roads.

Remote Sensing (Specific Dataset, 2015)

25. Matejicek, L., 2017. Assessment of Energy Sources Using GIS. Springer.
Remote Sensing (Mentions OpenTopography as a resource)
26. McKevitt, D.J., Rice, T.L., Jackson, E. and Couser, V., 2017. So, You Want to 3D Print a Landscape? An Outline of Some Methods.
Computer Science (Mentions OpenTopography as a data source)
27. Natividad, G., 2017. Stunted Firms: The Long-Term Impacts of Colonial Taxation.
City Planning (Shuttle Radar Mission Topography 30m)
28. Ni, H., Lin, X., & Zhang, J., 2017. Classification of ALS Point Cloud with Improved Point Cloud Segmentation and Random Forests. *Remote Sensing*, v. 9(3), p. 288.
Remote Sensing (Iowa River, 2008)
29. Nguyen, V. T., & Dang, T., 2017. Setting up Virtual Reality and Augmented Reality Learning Environment in Unity. In *Mixed and Augmented Reality (ISMAR-Adjunct)*, 2017 IEEE International Symposium, p. 315-320. IEEE.
Earth Science (Shuttle Radar Topography Mission)
30. Özcan, A. H., & Ünsalan, C., 2017. LiDAR Data Filtering and DTM Generation Using Empirical Mode Decomposition. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, v. 10(1), p. 360-371.
Remote Sensing
31. Patyniak, M., Landgraf, A., Dzhumabaeva, A., Abdrakhmatov, K. E., Rosenwinkel, S., Korup, O., ... & Strecker, M. R. Paleoseismic Record of Three Holocene Earthquakes Rupturing the Issyk-Ata Fault near Bishkek, North Kyrgyzstan. *Bulletin of the Seismological Society of America*.
Earth Science
32. Pelletier, J. D., & Swetnam, T. L., 2017. Asymmetry of weathering-limited hillslopes: The importance of diurnal covariation in solar insolation and temperature. *Earth Surface Processes and Landforms*.
Earth Science (Raplee Ridge, Utah 2005)
33. Rabehi, W., & Mahi, H., 2017. Free and proprietary image processing software, state of the art and comparative study, *Remote Sensing and GIS*.
Computer Science

34. Rajagopal, A., Chellappan, K., Chandrasekaran, S. and Brown, A.P., 2017. A machine learning pipeline for automated registration and classification of 3D lidar data. In *SPIE Defense+ Security* (pp. 101990A-101990A). International Society for Optics and Photonics.
Computer Science (Mentions OpenTopography as a data source)
35. Robinson, S. E., Bohon, W., Kleber, E. J., Arrowsmith, J. R., & Crosby, C. J. (2017). Applications of high-resolution topography in Earth science education. *Geosphere*.
Earth Science (Specific)
36. Romero, B.E. and Clarke, K.C., 2017. Exploring uncertainties in terrain feature extraction across multi-scale, multi-feature, and multi-method approaches for variable terrain. *Cartography and Geographic Information Science*, pp.1-19.
Remote Sensing (Mentions OpenTopography as a Resource)
37. Salisbury, J. B., Rockwell, T. K., & Buga, M. T., 2017. Paleoseismic Evidence for the 21 April 1918 Mw 6.9 Surface Rupture of the Northern Clark Strand of the Central San Jacinto Fault, California. *Bulletin of the Seismological Society of America*.
Earth Science
38. Sardar, T., Xu, A., & Raziq, A., 2017. Downward shortwave radiation estimation and spatial assessment on sites over complex terrain applying integrative approach of MTCLIM-XL, interpolation, RS and GIS. *Environment Systems and Decisions*, p. 1-16, DOI:10.1007/s10669-017-9637-6
Remote Sensing (Shuttle Radar Topography Mission 30m)
39. Singh, D., Use of Satellite Data for Feasibility Study And Preliminary Design Project Report for Urban Development And Highway Cross Drainage Structures.
Urban Planning (Mentions OpenTopography as a resource)
40. Spore, N. J., & Brodie, K. L., 2017. *Collection, Processing and Accuracy of Mobile Terrestrial Lidar Survey Data in the Coastal Environment* (No. ERDC/CHL TR-17-5). ERDC-CHL Kitty Hawk United States.
Computer Science (Mentions OpenTopography as a resource)
41. Stewart, N., Gaudemer, Y., Manighetti, I., Serreau, L., Vincendeau, A., Dominguez, S., ... & Malavieille, J. (2017). "3D_Fault_Offsets", a Matlab code to automatically measure lateral and vertical fault offsets in topographic data; application to San Andreas, Owens Valley and Hope faults. *Journal of Geophysical Research: Solid Earth*.
Computer Science/Earth Science (Mentions OpenTopography as a resource)
42. Strom, M.A., Pasternack, G.B., Burman, S.G., Dahlke, H.E. and Sandoval-Solis, S., Hydraulic hazard exposure of humans swept away in a whitewater river. *Natural Hazards*, p.1-30.

Earth Science

43. Tennant, C.J., Harpold, A.A., Lohse, K.A., Godsey, S.E., Crosby, B.T., Larsen, L.G., Brooks, P.D., Van Kirk, R.W. and Glenn, N.F., Regional sensitivities of seasonal snowpack to elevation, aspect, and vegetation cover in western North America. *Water Resources Research*.

Earth Science

44. Ugalde, F., Marangunic, C. and Casassa, G., 2017, June. Ice thickness changes at Aparejo Glacier in central Chile from interferometric satellite data. In *Geoscience and Remote Sensing (GRSS-CHILE), 2017 First IEEE International Symposium of* (pp. 1-4). IEEE.

Earth Science (Shuttle Radar Topography Mission)

45. Wagner, R. W., Lague, D., Mohrig, D., Passalacqua, P., Shaw, J., & Moffett, K., 2017. Elevation Change and Stability on a Prograding Delta. *Geophysical Research Letters*.

Earth Science

46. Wang, H., Guan, X., & Wu, H., 2017. A Hybrid Parallel Spatial Interpolation Algorithm for Massive LiDAR Point Clouds on Heterogeneous CPU-GPU Systems. *ISPRS International Journal of Geo-Information*, v. 6(11), p. 363.

Remote Sensing (Mentions as a resource)

47. Whelley, P. L., Garry, W. B., Hamilton, C. W., & Bleacher, J. E., 2017. LiDAR-derived surface roughness signatures of basaltic lava types at the Muliwai a Pele Lava Channel, Mauna Ulu, Hawaii ‘i. *Bulletin of Volcanology*, 79(11), 75.

Earth Science (Hawaii Big Island Lidar Survey, 2009)

48. Williams, R.D., Tooth, S. and Gibson, M., 2017. The sky is the limit: reconstructing physical geography from an aerial perspective. *Journal of Geography in Higher Education*, v. 41(1), p.134-146.

Earth Science (Mentions OpenTopography as a data source)

49. Wu, B., Yu, B., Wu, Q., Chen, Z., Yao, S., Huang, Y., & Wu, J., 2017. An Extended Minimum Spanning Tree method for characterizing local urban patterns. *International Journal of Geographical Information Science*, 1-26.

Urban Planning (Mentions OpenTopography as a resource)

50. Yan, Y., Gao, F., Deng, S., & Su, N., 2017. A Hierarchical Building Segmentation in Digital Surface Models for 3D Reconstruction. *Sensors*, v. 17(2), p. 222.

Computer Science

51. Zinke, R., Dolan, J. F., Rhodes, E. J., Van Dissen, R., & McGuire, C. P., 2017. Highly variable latest Pleistocene–Holocene incremental slip rates on the Awatere fault at Saxton River, South

Island, New Zealand, revealed by lidar mapping and luminescence dating. *Geophysical Research Letters*.

Earth Science (Marlborough Fault Zone, New Zealand, 2014)

52. Zhou, X. and Li, W., 2017. A Geographic Object-Based Approach for Land Classification Using LiDAR Elevation and Intensity. *IEEE Geoscience and Remote Sensing Letters*.

Remote Sensing (Granite Dells, AZ, 2009)

2016

1. Abellan, A., Derron, M. H., Jaboyedoff, M., 2016. Use of 3D point clouds in geohazards: *Remote Sensing*, v. 8(130).

Earth Science

2. Agarwal, P., K., Beutel, A., Mølhave, T., 2016. TerraNNI: Natural Neighbor Interpolation on 2D and 3D Grids Using a GPU. *ACM Trans. Spatial Algorithms System*, v. 7,

doi:<http://dx.doi.org/10.1145/2786757>.

Computer Science

3. Billant, J., Bellier, O., Godard, V. and Hippolyte, J.C., 2016. Constraining recent fault offsets with statistical and geometrical methods: Example from the Jasneuf Fault (Western Alps, France). *Tectonophysics*.

Earth Science

4. Dambros, Cristian S., et al. 2016. Isolation by distance, not rivers, control the distribution of termite species in the Amazonian rain forest. *Ecography*.

Earth Science

5. DeLong, S.B., Donnellan, A., Ponti, D.J., Rubin, R.S., Lienkaemper, J.J., Prentice, C.S., Dawson, T.E., Gordon, S., Schwartz, D.P., Hudnut, K.W. and Rosa, C., 2016. Tearing the terroir: Details and implications of surface rupture and deformation from the 24 August 2014 M6.0 South Napa earthquake, California. *Earth and Space Science*.

Earth Science (South Napa Earthquake)

6. Dhakal, Y. P., Kubo, H., Suzuki, W., Kunugi, T., Aoi, S., Fujiwar, H., 2016. Analysis of strong ground motions and site effects at Kantipath, Kathmandu, from 2015 Mw 7.8 Gorkha, Nepal, earthquake and its aftershocks: *Earth, Planets, and Space*, v. 68(58),

doi:10.1186/s40623-016-0432-2.

Earth Science

7. Eitel, J.U., Höfle, B., Vierling, L.A., Abellán, A., Asner, G.P., Deems, J.S., Glennie, C.L., Joerg, P.C., LeWinter, A.L., Magney, T.S. and Mandlburger, G., 2016. Beyond 3-D: The new spectrum

of lidar applications for earth and ecological sciences. *Remote Sensing of Environment*, v. 186, p.372-392.

Remote Sensing

8. Floyd, M. A., Walters, R. J., Elliott, J. R., Funning, G. J., Svarc, J. L., Murray, J. R., Hooper, A. J., 2016. Spatial variations in fault friction related to lithology from rupture and afterslip of the 2014 South Napa, California, earthquake, *Geophys. Res. Lett.*, v. 43, doi:10.1002/2016GL069428.
Earth Science
9. Gartner, J., 2016. Stream Power: Origins, Geomorphic Applications, and GIS Procedures.
Earth Science
10. Grieve, S., 2016. How does grid-resolution modulate geomorphic processes: data.
Earth Science
11. Hu, H., Hong, X., Terstriep, J., Liu, Y.Y., Finn, M.P., Rush, J., Wendel, J. and Wang, S., 2016. TopoLens: Building a CyberGIS Community Data Service for Enhancing the Usability of High-resolution National Topographic Datasets. In Proceedings of the XSEDE16 Conference on Diversity, Big Data, and Science at Scale, p. 39.
Computer Science
12. Huang, S., Dou, A., Wang, X. and Wang, J., 2016, November. Earthquake-induced building damage detection method based on normal computation of neighboring points searching on 2D-plane. In *Geoscience and Remote Sensing Symposium (IGARSS), 2016 IEEE International*, p. 4251-4254. IEEE.
Earth Science
13. Kolzenburg, S., Favalli, M., Fornaciai, A., Isola, I., Harris, A.J.L., Nannipieri, L. and Giordano, D., 2016. Rapid Updating and Improvement of Airborne LIDAR DEMs Through Ground-Based SfM 3-D Modeling of Volcanic Features. *IEEE Transactions on Geoscience and Remote Sensing*, v. 54(11), p. 6687.
Earth Science
14. Kulawiak, M. and Kulawiak, M., 2017. Application of Web-GIS for Dissemination and 3D Visualization of Large-Volume LiDAR Data. *The Rise of Big Spatial Data*, p. 1-12.
Computer Science
15. Lam, N., Kean, J.W. and Lyon, S.W., 2016. Modeling streamflow from coupled airborne laser scanning and acoustic Doppler current profiler data. *Hydrology Research*.
Earth Science

16. Li, J., Chen, X., Cui, T. and Huo, H., 2016. Monitoring vegetation green up using satellite and ground data in Inner Mongolia steppe, China. In Geoscience and Remote Sensing Symposium (IGARSS), 2016 IEEE International, p. 1348-1351. IEEE.
Earth Science
17. Li, Y., Tang, C., Han, Z., Huang, J., Xu, L., He, Y., Chen, G., 2016. Estimating the mud depth of debris flow in a natural river channel: a theoretical approach and its engineering application: Environmental Earth Sciences, v. 75(722), doi:10.1007/s12665-016-5480-1.
Earth Science
18. Neale, C.M.U., Jaworowski, C., Heasler, H., Sivarajan, S. and Masih, A., 2016. Hydrothermal monitoring in Yellowstone National Park using airborne thermal infrared remote sensing: Remote Sensing of Environment, v. 184, p.628-644.
Earth Science (EarthScope 2008)
19. Ozcan, A. H., Unsalan, C., 2016. LiDAR data filtering and DTM generation using empirical mode decomposition: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 99, doi:10.1109/JSTARS.2016.2543464.
Remote Sensing
20. Pfeiffer, A.M. and Finnegan, N.J., 2016. Basin-scale methods for predicting salmonid spawning habitat via grain size and riffle spacing, tested in a California coastal drainage: Earth Surface Processes and Landforms.
Earth Science (Big Creek, California)
21. Sahakian, V., Kell, A., Harding, A., Driscoll, N. and Kent, G., 2016. Geophysical Evidence for a San Andreas Subparallel Transtensional Fault along the Northeastern Shore of the Salton Sea. Bulletin of the Seismological Society of America, v. 106(5), p.1963-1978.
Earth Science
22. Schmidt-Dumont, T. and van Vuuren, J.H., 2016. Optimisation of radio transmitter locations in mobile telecommunication networks. South African Journal of Industrial Engineering, v. 27(2), p.160-176.
Remote Sensing
23. Swetnam, T. L., et al., 2016. Scaling GIS analysis tasks from the desktop to the cloud utilizing contemporary distributed computing and data management approaches: A case study of project-based learning and cyberinfrastructure concepts. Proceedings of the XSEDE16 Conference on Diversity, Big Data, and Science at Scale.
Computer Science

24. Thaler, E.A. and Covington, M.D., 2016. The influence of sandstone caprock material on bedrock channel steepness within a tectonically passive setting: Buffalo National River Basin, Arkansas, USA: *Journal of Geophysical Research: Earth Surface*.
Earth Science (Bear Creek, CA)
25. Yildirim, A.A., Tarboton, D., Liu, Y., Sazib, N.S. and Wang, S., 2016. Accelerating TauDEM for Extracting Hydrology Information from National-Scale High Resolution Topographic Dataset. In *Proceedings of the XSEDE16 Conference on Diversity, Big Data, and Science at Scale*, p. 3.
Earth Science
26. Wolf, J., Brocard, G., Willenbring, J., Porder, S. and Uriarte, M., 2016. Abrupt Change in Forest Height along a Tropical Elevation Gradient Detected Using Airborne Lidar. *Remote Sensing*, v. 8(10), p.864.
Remote Sensing (SRTM, Luqillo)
27. Wu, B., Yu, B., Wu, Q., Huang, Y., Chen, Z. and Wu, J., 2016. Individual tree crown delineation using localized contour tree method and airborne LiDAR data in coniferous forests. *International Journal of Applied Earth Observation and Geoinformation*, v. 52, p.82-94.
Earth Science

2015

1. Aryal, A., Brooks, B. A., and Reid, M.E., 2015, Landslide subsurface slip geometry inferred from 3D surface displacement fields: *Geophysical Research Letters*, v. 46(5), p. 1411-1417, doi:10.1002/2014GL062688.
Earth Science
2. Baltzer, H., Cole, B., 2015, Mapping CORINE Land Cover from Sentinel-1A SAR and SRTM Digital Elevation Model Data using Random Forests: *Remote Sensing*, v. 7, doi:10.3390/rs71114876
Computer Science
3. Bariščin, I., Hinojosa-Corona, A., and Parsons, B., 2015, Co-seismic vertical displacements from a single post-seismic lidar DEM: example from the 2010 El Mayor-Cucapah earthquake: *Geophysical Journal International*, v. 202(1), p. 328-346, doi:10.1093/gji/ggv139.
Earth Science (El Mayor-Cucapah)
4. Bisson, M., Spinetti, C., Neri, M., Bonforte, A., 2015. Mt. Etna volcano high-resolution topography: airborne lidar modelling validated by GPS data, *International Journal of Digital Earth*, doi:10.1080/17538947.2015.1119208.
Earth Science

5. Canaz, S., Karsli, F., 2015, Automatic boundary extraction of inland water bodies using LiDAR data: *Ocean and Coastal Management*, v. 118 (B), p. 158-166, doi:10.1016/j.ocecoaman.2015.07.024
Earth Sciences

6. Carter, W. E., Glennie, C. L., and Shrestha, R. L., 2015, Geodetic imaging by airborne LiDAR: a golden age in geodesy-a bonanza for related sciences: *International Association of Geodesy Symposia*, doi:10.1007/1345_2015_121.
Remote Sensing

7. Conway, S. J., Balme, M. R., and Kreslavsky, M. A., 2015, The comparison of topographic long gullies on earth to gullies on Mars: A signal of water on Mars: *Icarus*, v. 253, p. 189-204, doi:10.1016/j.icarus.2015.03.009.
Remote Sensing

8. DiBiase, R.A., Whipple, K.X., Lamb, M.P., Heimsath, A.M., 2015, The role of waterfalls and knickzones in controlling the style and pace of landscape adjustment in the western San Gabriel Mountains, CA: *Geological Society of America Bulletin*, doi:10.1130/B311113.1.
Earth Science (San Gabriel, CA)

9. Dong, P., 2015, Automated measurement of sand dune migration using multi-temporal lidar data and GIS: *International Journal of Remote Sensing*, v. 36(21), p. 5426-5447, doi:10.1080/01431161.2015.1093192.
Earth Sciences

10. Eltner, A., Kaiser, A., Castillo, C., 2015, Image-based surface reconstruction in geomorphometry – merits, limits and developments of a promising tool for geoscientists: *Earth Surface Dynamics discussions*, doi:10.5194/esurfd-3-1445-2015.
Computer Science

11. Gold, P.O., Behr, W.M., Rood, D., Sharp, W.D., Rockwell, T.K., Kendrick, K., and Salin, A., 2015, Holocene geologic slip rate for the Banning strand of the southern San Andreas Fault, southern California: *Journal of Geophysical research: Solid Earth*, Accepted July 2015, doi:10.1002/2015JB012004
Earth Science (B4 Project- Southern San Andreas and San Jacinto Faults)

12. Gomez-Gutierrez, A., Conoscenti, C., Angileri, S.E., Rotigliano, E., and Schnabel, S., 2015, Using topographical attributes to evaluate gully erosion proneness (susceptibility) in two Mediterranean basins: Advantages and limitations: *Natural Hazards*, v. 37, doi:10.1007/s11069-015-1703-0.
Earth Science

13. Griffith, K.T., Ponette-Gonzales, A.G., Curran, L.M., and Weathers, K.C., 2015, Assessing the influence of topography and canopy structure on Douglas Fir throughfall with LiDAR and empirical data in the Santa Cruz Mountains, USA: *Environmental Monitoring and Assessment*, doi:10.1007/s10661-015-4486-0.
Earth Science

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Earth Science (B4 Project- Southern San Andreas and San Jacinto Faults)

2011

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Computer Science

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Remote Sensing (B4)
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2009

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Earth Science (EarthScope Northern California LiDAR Project)
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Geography

2007

2006

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Earth Science (South Fork Eel River, CA Watershed Morphology)
2. Jaeger-Frank, E., Crosby, C.J., Memon, A., Nandigam, V., Arrowsmith, J R., Conner, J., Altintas, I., and Baru, C., 2009, A Three Tier Architecture for LiDAR Interpolation and Analysis: *Lecture Notes in Computer Science*, v. 3993, p. 920-927, doi:10.1007/11758532_123.
Computer Science
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Earth Science (Death Valley National Park: Badwater Basin)

Theses

2018

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Earth Science (B4 Project)

2017

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Computer Science
2. Johnson, K. L., 2017. Applications of high resolution topography in active tectonics (Ph.D., Colorado School of Mines. Arthur Lakes Library).
Earth Science (Mentions OpenTopography as a resource)
3. Macleod, E. A., 2017. Using lidar to map the geology and morphology of alluvial fans: Salton Sea area, California, M.S., Michigan Technological University.
Earth Science (Salton Sea, CA 2010)
4. Murphy, B. P., 2017. Feedbacks among chemical weathering, rock strength and erosion with implications for the climatic control of bedrock river incision, Ph. D.
Earth Science (Kohala Peninsula, HI 2013)
5. Querejazu, A. P., 2017. Assessment of the progression of coal mine subsidence in Colorado, using InSAR (Doctoral dissertation, ProQuest Dissertations Publishing).
Earth Science
6. Reynolds, J.D., 2017. Comparing Urban Vegetation Cover with Summer Land Surface Temperature in the Salt Lake Valley (Doctoral dissertation, The University of Utah).
Earth Science (Lake Bonneville 2014)
7. Woodley, A., Chappell, T., Geva, S., & Nayak, R., 2017. Using web services to fuse remote sensing and multimedia data repositories. In *Proceedings of the Australasian Computer Science Week Multiconference*, p. 54.
Computer Science

2016

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Computer Science
2. Clubb, F.J., Mudd, S.M., Attal, M. and Milodowski, D.T., and Stuart WD Grieve. 2016. The relationship between drainage density, erosion rate, and hilltop curvature: implications for sediment transport processes. University of Edinburg, United Kingdom.
Earth Science

3. Croissant, T., 2016. *Modélisation numérique de l'impact des grands tremblements de terre sur la dynamique des rivières* (Doctoral dissertation, Université Rennes 1).
Earth Science (PG&E Diablo canyon)
4. Dickerson-Lange, S.E., 2016. Quantifying and Modeling the Influence of Forest on the Magnitude and Duration of Mountain Snow Storage in the Pacific Northwest, USA (Doctoral dissertation, University of Washington).
Earth Science
5. Kramer, H.A., 2016. Not seeing the forest for the points: Novel LiDAR metrics elucidate forest structure and increase LiDAR usability by managers. University of California, Berkeley.

2015

1. Jara-Munoz, J., Melnick, D., Strecker, M., 2015, TerraceM[®]: a Matlab[®] tool for the analysis of marine terraces: *in* Proceedings, European Geosciences Union, doi: 10.1130/GES00702.S1.
Earth Science/Computer Science (Santa Cruz)
2. Kelleher, Christa, Wagener, T. McGlynn, B., 2015, Model-based analysis of the influence of catchment properties on hydrologic partitioning across five mountain headwater subcatchments: Water Resources Research, AGU, doi:10.1002/2014WR016147.
Earth Science (Tenderfoot Creek)
3. Peng, K., 2015, Analysis and modelling of recent large floods on the river Gaula, Norwegian University of Science and Technology, [M.S. thesis]: NTNU.
Earth Science
4. Ottow, B.P., 2015, Spatial allocation of micro hydropower sites using freely available datasets: application in southern Mindanao, Philippines [M.S. thesis]: Wageningen, Netherlands, Wageningen University and Research Centre, 44 p., doi:10.13140/RG.2.1.4567.4407.
Urban Planning/Geography/Remote Sensing

2014

1. Ivančić, Matejka., 2014, Vizualizacija Seizmickih Podataka [Ph.D. Thesis]: Bosnia, Sveuciliste U Zagrebu.
Earth Science (SRTM)
2. Oroza, C., Zheng, Z., Glaser, S.D., 2014, Optimization of Sensor Placements Using Machine Learning and LIDAR data: a Case Study for a Snow Monitoring Network in the Sierra Nevada: *in* Proceedings, American Geophysical Union, C43D-0412.
Earth Science (Sierra Nevadas)

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Earth Science (Hector Mine)
4. Wicker, Cary, 2014, Tectonic geomorphology of the San Timoteo Badlands: New insights from OSL and LiDAR data [Ph.D. Thesis]: Long Beach, California, California State University.
Earth Science (B4)

2013

1. Basgall, P. L., 2013, Lidar point cloud and stereo image point cloud fusion [Ph. D. Thesis]: Monterey, California, Naval Postgraduate School.
Computer Science (San Diego, 2005, Haiti)
2. Dong, P., 2013, Automated treetop detection and tree crown identification using discrete-return LiDAR data [Ph. D. Thesis]: University of North Texas.
Earth Science/Remote Sensing (EarthScope NoCal)
3. Ewald, Michael J., 2013, Where's the ground surface? Elevation bias in LIDAR-derived digital elevation models due to dense vegetation in Oregon tidal marshes [M.S. Thesis]: Oregon State University.
Remote Sensing/Earth Science (DOGAMI)
4. Gorum, T., 2013, Towards a better understanding of earthquake triggered landslides: An analysis of the size, distribution pattern and different tectonic and geomorphic environments [Ph.D. Thesis]: Mus, Turkey, University of Twente.
Earth Science (EarthScope Alaska Denali Totschunda LiDAR Project)
5. Sedki, Ziad, 2013, LiDAR and field investigation along the San Andreas Fault, San Bernardino/Cajon Pass area, Southern California [M.S. Thesis]: Long Beach, CA, California State University.
Earth Science (B4)
6. Swetnam, Tyson L., 2013, Cordilleran forest scaling dynamics and disturbance regimes quantified by aerial lidar [M.S. Thesis]: Tucson, Arizona, The University of Arizona.
Earth Science (Valles Caldera CZO)
7. Wolf, E. M. (2013). Quaternary deformation of the middle pleistocene Christmas Canyon Formation and its implications for neotectonic processes associated with the Garlock Fault and Eastern California Shear Zone [Ph.D. Thesis]: Los Angeles, CA, The University of California.
Earth Science (ECSZ)

2012

1. Dong, P., 2012, Quantitative comparison of LiDAR data and user-generated three-dimensional building models from Google Building Maker[®] [Ph. D. Thesis]: University of North Texas.
Computer Science

2. Schrijvers, O., 2012, Insertions and deletions in Delaunay Triangulations using guided point location [M.S. Thesis]: Technische Universiteit Eindhoven.
Computer Science
3. Winter, T., 2012, Mass wasting in the Yakima River Canyon, Washington: An inventory and hazard assessment [Ph. D. Thesis]: Central Washington University.
Earth Science

2011

1. Robinson, S.E., 2011, Integrating LiDAR topography into the study of earthquakes and faulting [M.S. Thesis]: Tempe, Arizona, Arizona State University.
Earth Science/Remote Sensing

2010

1. Feigelson, L., 2010, Slip rate on the Peninsula San Andreas Fault, San Mateo County, California [Ph.D. Thesis]: San Francisco, California, San Francisco State University.
Earth Science (B4)
2. Foster, M., 2010, Knickpoints in tributaries of the South Fork Eel River, northern California [M.S. Thesis]: Humboldt State University.
Earth Science (Eel River, CA)

2006

1. Crosby, C.J. 2006, A Geoinformatics Approach to LiDAR Data Distribution and Processing with Applications to Geomorphology [M.S. Thesis]: Tempe, Arizona, Arizona State University.
Earth Science/Computer Science

Reports & White Papers

2018

1. Fraiss, S. M. Rendering Large Point Clouds in Unity.
Computer Science (Uses OpenTopography as a resource)

2017

1. Matejcek, L. (2017). Spatial and Temporal Analysis for Energy Systems. In *Assessment of Energy Sources Using GIS* (pp. 29-60). Springer International Publishing.
City Planning
2. Toth, A., Dhuvur, K. and Ulin, M., Powerscout, Inc., 2016. *Spatial modeling and other data analytics enabled energy platform*. U.S. Patent Application 15/260,917.

2016

1. Bowman, S.D. and Lund, W.R., 2016. *2016 GUIDELINES FOR INVESTIGATING GEOLOGIC HAZARDS AND PREPARING ENGINEERING-GEOLOGY REPORTS, WITH A SUGGESTED*

APPROACH TO GEOLOGIC-HAZARD ORDINANCES IN UTAH (Vol. 122). Utah Geological Survey.

Earth Science (State of Utah, Wasatch Front)

2015

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