Geoffrey Blewitt

List of Publications by Year in Descending Order

64 papers	4,218 citations	30 h-index	64 g-index
68 ext. papers	4,955 ext. citations	7.5 avg, IF	5.93 L-index

#	Paper	IF	Citations
64	The Viscosity of the Top Third of the Lower Mantle Estimated Using GPS, GRACE, and Relative Sea Level Measurements of Glacial Isostatic Adjustment. *Journal of Geophysical Research: Solid Earth*, **2021**, 126, e2020JB021537	3.6	4
63	Global Comparisons of ERA5 and the Operational HRES Tropospheric Delay and Water Vapor Products With GPS and MODIS. *Earth and Space Science*, **2021**, 8, e2020EA001417	3.1	5
62	Geodetic Extension Across the Southern Basin and Range and Colorado Plateau. *Journal of Geophysical Research: Solid Earth*, **2021**, 126, e2020JB021355	3.6	0
61	GPS Imaging of Global Vertical Land Motion for Studies of Sea Level Rise. *Journal of Geophysical Research: Solid Earth*, **2021**, 126, e2021JB022355	3.6	4
60	Robust estimation of spatially varying common-mode components in GPS time-series. *Journal of Geodesy*, **2021**, 95, 1	4.5	9
59	GPS Constraints on Drought-Induced Groundwater Loss Around Great Salt Lake, Utah, With Implications for Seismicity Modulation. *Journal of Geophysical Research: Solid Earth*, **2021**, 126, e2021JB022020	3.6	1
58	Atmospheric pressure loading in GPS positions: dependency on GPS processing methods and effect on assessment of seasonal deformation in the contiguous USA and Alaska. *Journal of Geodesy*, **2020**, 94, 1	4.5	13
57	Geodetic evidence for a buoyant mantle plume beneath the Eifel volcanic area, NW Europe. *Geophysical Journal International*, **2020**, 222, 1316-1332	2.6	20
56	Rise of Great Lakes Surface Water, Sinking of the Upper Midwest of the United States, and Viscous Collapse of the Forebulge of the Former Laurentide Ice Sheet. *Journal of Geophysical Research: Solid Earth*, **2020**, 125, e2020JB019739	3.6	11
55	Understanding of Contemporary Regional Sea-Level Change and the Implications for the Future. *Reviews of Geophysics*, **2020**, 58, e2019RG000672	23.1	22
54	Drought-Triggered Magmatic Inflation, Crustal Strain, and Seismicity Near the Long Valley Caldera, Central Walker Lane. *Journal of Geophysical Research: Solid Earth*, **2019**, 124, 6072-6091	3.6	14
53	Search for transient ultralight dark matter signatures with networks of precision measurement devices using a Bayesian statistics method. *Physical Review D*, **2018**, 97,	4.9	6
52	Uplift of the Western Transverse Ranges and Ventura Area of Southern California: A Four-Technique Geodetic Study Combining GPS, InSAR, Leveling, and Tide Gauges. *Journal of Geophysical Research: Solid Earth*, **2018**, 123, 836-858	3.6	17
51	GIA Model Statistics for GRACE Hydrology, Cryosphere, and Ocean Science. *Geophysical Research Letters*, **2018**, 45, 2203-2212	4.9	83
50	A Robust Estimation of the 3-D Intraplate Deformation of the North American Plate From GPS. *Journal of Geophysical Research: Solid Earth*, **2018**, 123, 4388-4412	3.6	40
49	Harnessing the GPS Data Explosion for Interdisciplinary Science. *Eos*, **2018**, 99,	1.5	265
48	Search for domain wall dark matter with atomic clocks on board global positioning system satellites. *Nature Communications*, **2017**, 8, 1195	17.4	64

47	MIDAS robust trend estimator for accurate GPS station velocities without step detection. *Journal of Geophysical Research: Solid Earth*, **2016**, 121, 2054-2068	3.6	144
46	Accommodation of missing shear strain in the Central Walker Lane, western North America: Constraints from dense GPS measurements. *Earth and Planetary Science Letters*, **2016**, 440, 169-177	5.3	32
45	GPS Imaging of vertical land motion in California and Nevada: Implications for Sierra Nevada uplift. *Journal of Geophysical Research: Solid Earth*, **2016**, 121, 7681-7703	3.6	64
44	Assessing the impact of vertical land motion on twentieth century global mean sea level estimates. *Journal of Geophysical Research: Oceans*, **2016**, 121, 4980-4993	3.3	25
43	GPS and Space-Based Geodetic Methods **2015**, 307-338		9
42	Uplift and seismicity driven by groundwater depletion in central California. *Nature*, **2014**, 509, 483-6	50.4	160
41	Steady contemporary deformation of the central Basin and Range Province, western United States. *Journal of Geophysical Research: Solid Earth*, **2014**, 119, 5235-5253	3.6	13
40	A geodetic plate motion and Global Strain Rate Model. *Geochemistry, Geophysics, Geosystems*, **2014**, 15, 3849-3889	3.6	401
39	Terrestrial reference frame NA12 for crustal deformation studies in North America. *Journal of Geodynamics*, **2013**, 72, 11-24	2.2	85
38	Contemporary uplift of the Sierra Nevada, western United States, from GPS and InSAR measurements. *Geology*, **2012**, 40, 667-670	5	42
37	Interseismic deformation and geologic evolution of the Death Valley Fault Zone. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		3
36	Rapid determination of earthquake magnitude and displacement field from GPS-observed coseismic offsets for tsunami warning **2012**,		1
35	Block modeling of crustal deformation of the northern Walker Lane and Basin and Range from GPS velocities. *Journal of Geophysical Research*, **2011**, 116,		57
34	Rise of the Ellsworth mountains and parts of the East Antarctic coast observed with GPS. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	26
33	Evidence for an active shear zone in southern Nevada linking the Wasatch fault to the Eastern California shear zone. *Geology*, **2010**, 38, 475-478	5	20
32	Rapid GPS-based determination of earthquake displacement field and magnitude for tsunami propagation modeling and warning **2010**,		4
31	Effect of viscoelastic postseismic relaxation on estimates of interseismic crustal strain accumulation at Yucca Mountain, Nevada. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	16
30	Present-day motion and deformation of the Colorado Plateau. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	21

29	GPS for real-time earthquake source determination and tsunami warning systems. *Journal of Geodesy*, **2009**, 83, 335-343	4.5	92
28	Geodetic observation of contemporary deformation in the northern Walker Lane: 1. Semipermanent GPS strategy **2009**,		9
27	Geodetic constraints on contemporary deformation in the northern Walker Lane: 3. Central Nevada seismic belt postseismic relaxation **2009**,		15
26	Consistency of Earth Rotation, Gravity, and Shape Measurements. *International Association of Geodesy Symposia*, **2009**, 463-471	0.8	1
25	Fixed point theorems of GPS carrier phase ambiguity resolution and their application to massive network processing: Ambizap. *Journal of Geophysical Research*, **2008**, 113,		53
24	GPS and Space-Based Geodetic Methods **2007**, 351-390		8
23	Co- and postseismic deformation of the 28 March 2005 Nias Mw 8.7 earthquake from continuous GPS data. *Geophysical Research Letters*, **2006**, 33,	4.9	43
22	Geocenter motions from GPS: A unified observation model. *Journal of Geophysical Research*, **2006**, 111, n/a-n/a		69
21	Testing for fault activity at Yucca Mountain, Nevada, using independent GPS results from the BARGEN network. *Geophysical Research Letters*, **2006**, 33,	4.9	23
20	Rapid determination of earthquake magnitude using GPS for tsunami warning systems. *Geophysical Research Letters*, **2006**, 33,	4.9	148
19	On the stability of a geodetic no-net-rotation frame and its implication for the International Terrestrial Reference Frame. *Geophysical Research Letters*, **2006**, 33,	4.9	34
18	Global deformation from the great 2004 Sumatra-Andaman Earthquake observed by GPS: Implications for rupture process and global reference frame. *Earth, Planets and Space*, **2006**, 58, 141-148	2.9	29
17	Effect of gravitational consistency and mass conservation on seasonal surface mass loading models. *Geophysical Research Letters*, **2005**, 32,	4.9	39
16	Application of Clebsch-Gordan Coefficients and Isomorphic Frame Transformations to Invert Earth's Changing Geometrical Shape for Continental Hydrological Loading and Sea Level's Passive Response **2005**, 518-523		3
15	Evidence for deep magma injection beneath Lake Tahoe, Nevada-California. *Science*, **2004**, 305, 1277-80	33.3	78
14	Degree-2 harmonics of the Earth's mass load estimated from GPS and Earth rotation data. *Geophysical Research Letters*, **2004**, 31, n/a-n/a	4.9	30
13	Self-consistency in reference frames, geocenter definition, and surface loading of the solid Earth. *Journal of Geophysical Research*, **2003**, 108,		211
12	Inversion of Earth's changing shape to weigh sea level in static equilibrium with surface mass redistribution. *Journal of Geophysical Research*, **2003**, 108,		69

List of Publications

11	The Global Positioning System Geodesy Odyssey. *Navigation, Journal of the Institute of Navigation*, **2002**, 49, 7-33	2.3	9
10	Effect of annual signals on geodetic velocity. *Journal of Geophysical Research*, **2002**, 107, ETG 9-1-ETG 9-11		351
9	Degree-1 Earth deformation from very long baseline interferometry measurements. *Geophysical Research Letters*, **2002**, 29, 28-1-28-4	4.9	11
8	Bias in Geodetic Site Velocity due to Annual Signals: Theory and Assessment. *International Association of Geodesy Symposia*, **2002**, 499-500	0.8	6
7	A new global mode of Earth deformation: seasonal cycle detected. *Science*, **2001**, 294, 2342-5	33.3	254
6	Crustal displacements due to continental water loading. *Geophysical Research Letters*, **2001**, 28, 651-654	4.9	271
5	Methodology for global geodetic time series estimation: A new tool for geodynamics. *Journal of Geophysical Research*, **2000**, 105, 11083-11100		57
4	Geodetic network optimization for geophysical parameters. *Geophysical Research Letters*, **2000**, 27, 3615-3618	4.9	22
3	Atmospheric pressure loading effects on Global Positioning System coordinate determinations. *Journal of Geophysical Research*, **1994**, 99, 23939-23950		143
2	Absolute far-field displacements from the 28 June 1992 Landers earthquake sequence. *Nature*, **1993**, 361, 340-342	50.4	63
1	Carrier phase ambiguity resolution for the Global Positioning System applied to geodetic baselines up to 2000 km. *Journal of Geophysical Research*, **1989**, 94, 10187-10203		373