Andrew Hooper

List of Publications by Year
in descending order

107	8,915	76196 40	42291 92
papers	citations	h-index	g-index

133	133	133	5245
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A new method for measuring deformation on volcanoes and other natural terrains using InSAR persistent scatterers. Geophysical Research Letters, 2004, 31, .	1.5	1,264
2	A multiâ€temporal InSAR method incorporating both persistent scatterer and small baseline approaches. Geophysical Research Letters, 2008, 35, .	1.5	899
3	Persistent scatterer interferometric synthetic aperture radar for crustal deformation analysis, with application to VolcÃ¡n Alcedo, GalÃ¡pagos. Journal of Geophysical Research, 2007, 112, .	3.3	806
4	Recent advances in SAR interferometry time series analysis for measuring crustal deformation. Tectonophysics, 2012, 514-517, 1-13.	0.9	617
5	Segmented lateral dyke growth in a rifting event at BÃ¡rÃ°arbunga volcanic system, Iceland. Nature, 2015, 517, 191-195.	13.7	436
6	Intrusion triggering of the 2010 EyjafjallajÃ¶kull explosive eruption. Nature, 2010, 468, 426-430.	13.7	366
7	Phase unwrapping in three dimensions with application to InSAR time series. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 2737.	0.8	305
8	Statistical comparison of InSAR tropospheric correction techniques. Remote Sensing of Environment, 2015, 170, 40-47.	4.6	278
9	Gradual caldera collapse at BÃ¡rdarbunga volcano, Iceland, regulated by lateral magma outflow. Science, 2016, 353, aaf8988.	6.0	230
10	Inversion of Surface Deformation Data for Rapid Estimates of Source Parameters and Uncertainties: A Bayesian Approach. Geochemistry, Geophysics, Geosystems, 2018, 19, 2194-2211.	1.0	197
11	A spatially variable power law tropospheric correction technique for InSAR data. Journal of Geophysical Research: Solid Earth, 2015, 120, 1345-1356.	1.4	168
12	LiCSAR: An Automatic InSAR Tool for Measuring and Monitoring Tectonic and Volcanic Activity. Remote Sensing, 2020, 12, 2430.	1.8	127
13	The 2014â€“2015 eruption of Fogo volcano: Geodetic modeling of Sentinelâ€1 TOPS interferometry. Geophysical Research Letters, 2015, 42, 9239-9246.	1.5	125
14	Volcanology: Lessons learned from Synthetic Aperture Radar imagery. Journal of Volcanology and Geothermal Research, 2014, 289, 81-113.	0.8	116
15	Highâ€resolution digital elevation model from triâ€stereo Pleiadesâ€1 satellite imagery for lava flow volume estimates at Fogo Volcano. Geophysical Research Letters, 2016, 43, 6267-6275.	1.5	115
16	Persistent Scatterer InSAR: A comparison of methodologies based on a model of temporal deformation vs. spatial correlation selection criteria. Remote Sensing of Environment, 2011, 115, 2652-2663.	4.6	111
17	Measuring Urban Subsidence in the Rome Metropolitan Area (Italy) with Sentinel-1 SNAP-StaMPS Persistent Scatterer Interferometry. Remote Sensing, 2019, 11, 129.	1.8	111
18	Highâ€Resolution Surface Velocities and Strain for Anatolia From Sentinelâ€1 InSAR and GNSS Data. Geophysical Research Letters, 2020, 47, e2020GL087376.	1.5	108

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19	Surface deformation induced by water influx in the abandoned coal mines in Limburg, The Netherlands observed by satellite radar interferometry. Journal of Applied Geophysics, 2013, 88, 1-11.	0.9	92
20	Interseismic strain accumulation across the central North Anatolian Fault from iteratively unwrapped InSAR measurements. Journal of Geophysical Research: Solid Earth, 2016, 121, 9000-9019.	1.4	86
21	Increased capture of magma in the crust promoted by ice-cap retreat in Iceland. Nature Geoscience, 2011, 4, 783-786.	5.4	85
22	A decreasing glacier mass balance gradient from the edge of the Upper Tarim Basin to the Karakoram during 2000â€“2014. Scientific Reports, 2017, 7, 6712.	1.6	78
23	The challenging retrieval of the displacement field from InSAR data for andesitic stratovolcanoes: Case study of Popocatepetl and Colima Volcano, Mexico. Journal of Volcanology and Geothermal Research, 2011, 200, 49-61.	0.8	77
24	InSAR time-series analysis of land subsidence in Bangkok, Thailand. International Journal of Remote Sensing, 2013, 34, 2969-2982.	1.3	77
25	Importance of horizontal seafloor motion on tsunami height for the 2011 Mw=9.0 Tohoku-Oki earthquake. Earth and Planetary Science Letters, 2013, 361, 469-479.	1.8	76
26	Constant strain accumulation rate between major earthquakes on the North Anatolian Fault. Nature Communications, 2018, 9, 1392.	5.8	75
27	Iceland rising: Solid Earth response to ice retreat inferred from satellite radar interferometry and visocelastic modeling. Journal of Geophysical Research: Solid Earth, 2013, 118, 1331-1344.	1.4	67
28	From quiescence to unrest: 20â€‰years of satellite geodetic measurements at Santorini volcano, Greece. Journal of Geophysical Research: Solid Earth, 2015, 120, 1309-1328.	1.4	67
29	Surface deformation from persistent scatterers SAR interferometry and fusion with leveling data: A case study over the Choushui River Alluvial Fan, Taiwan. Remote Sensing of Environment, 2011, 115, 957-967.	4.6	66
30	Hybrid conventional and Persistent Scatterer SAR interferometry for land subsidence monitoring in the Tehran Basin, Iran. ISPRS Journal of Photogrammetry and Remote Sensing, 2013, 79, 157-170.	4.9	64
31	Spatial variations in fault friction related to lithology from rupture and afterslip of the 2014 South Napa, California, earthquake. Geophysical Research Letters, 2016, 43, 6808-6816.	1.5	62
32	Interferogram formation in the presence of complex and large deformation. Geophysical Research Letters, 2007, 34, .	1.5	58
33	InSAR processing for volcano monitoring and other nearâ€real time applications. Journal of Geophysical Research: Solid Earth, 2016, 121, 2947-2960.	1.4	57
34	Deep magma storage at Hekla volcano, Iceland, revealed by InSAR time series analysis. Journal of Geophysical Research, 2011, 116, .	3.3	56
35	Plate boundary deformation and man-made subsidence around geothermal fields on the Reykjanes Peninsula, Iceland. Journal of Volcanology and Geothermal Research, 2010, 194, 139-149.	0.8	54
36	Reassessing the 2006 Guerrero slowâ€slip event, Mexico: Implications for large earthquakes in the Guerrero Gap. Journal of Geophysical Research: Solid Earth, 2015, 120, 1357-1375.	1.4	52

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37	The 2008 May 29 earthquake doublet in SW Iceland. Geophysical Journal International, 2010, , .	1.0	51
38	A Bayesian Method for Incorporating Selfâ€Similarity Into Earthquake Slip Inversions. Journal of Geophysical Research: Solid Earth, 2018, 123, 6052-6071.	1.4	46
39	Using Machine Learning to Automatically Detect Volcanic Unrest in a Time Series of Interferograms. Journal of Geophysical Research: Solid Earth, 2019, 124, 12304-12322.	1.4	45
40	Forecasting the path of a laterally propagating dike. Journal of Geophysical Research: Solid Earth, 2015, 120, 8774-8792.	1.4	42
41	Geodetic observations of postseismic creep in the decade after the 1999 Izmit earthquake, Turkey: Implications for a shallow slip deficit. Journal of Geophysical Research: Solid Earth, 2016, 121, 2980-3001.	1.4	40
42	Blind Signal Separation Methods for InSAR: The Potential to Automatically Detect and Monitor Signals of Volcanic Deformation. Journal of Geophysical Research: Solid Earth, 2018, 123, 10,226.	1.4	40
43	Nyamulagiraâ€™s magma plumbing system inferred from 15 years of InSAR. Geological Society Special Publication, 2013, 380, 39-65.	0.8	35
44	Subsidence of Askja caldera 2000â€“2009: Modelling of deformation processes at an extensional plate boundary, constrained by time series InSAR analysis. Journal of Volcanology and Geothermal Research, 2012, 213-214, 72-82.	0.8	34
45	Anthropogenic and natural ground deformation in the Hengill geothermal area, Iceland. Journal of Geophysical Research: Solid Earth, 2017, 122, 692-709.	1.4	34
46	Injection-induced surface deformation and seismicity at the Hellisheidi geothermal field, Iceland. Journal of Volcanology and Geothermal Research, 2020, 391, 106337.	0.8	34
47	Climatic control on Icelandic volcanic activity during the mid-Holocene. Geology, 2018, 46, 47-50.	2.0	31
48	Remote Sensing of Volcanic Hazards and Their Precursors. Proceedings of the IEEE, 2012, 100, 2908-2930.	16.4	30
49	Unexpected large eruptions from buoyant magma bodies within viscoelastic crust. Nature Communications, 2020, 11, 2403.	5.8	29
50	InSAR observations and models of crustal deformation due to a glacial surge in Iceland. Geophysical Journal International, 2014, 198, 1329-1341.	1.0	28
51	The 2017 Eruption of Erta 'Ale Volcano, Ethiopia: Insights Into the Shallow Axial Plumbing System of an Incipient Midâ€Ocean Ridge. Geochemistry, Geophysics, Geosystems, 2019, 20, 5727-5743.	1.0	28
52	Short Wave Amplification and Extreme Runup by the 2011 Tohoku Tsunami. Pure and Applied Geophysics, 2014, 171, 3217-3228.	0.8	27
53	Characterizing and correcting phase biases in short-term, multilooked interferograms. Remote Sensing of Environment, 2022, 275, 113022.	4.6	27
54	Pressure sources versus surface loads: Analyzing volcano deformation signal composition with an application to Hekla volcano, Iceland. Geophysical Research Letters, 2010, 37, .	1.5	26

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55	2 Katla and EyjafjallajÃ¶kull Volcanoes. Developments in Quaternary Sciences, 2010, 13, 5-21.	0.1	26
56	Noneruptive Unrest at the Caldera of Alcedo Volcano (GalÃ¡pagos Islands) Revealed by InSAR Data and Geodetic Modeling. Journal of Geophysical Research: Solid Earth, 2019, 124, 3365-3381.	1.4	26
57	A Network Inversion Filter combining GNSS and InSAR for tectonic slip modeling. Journal of Geophysical Research: Solid Earth, 2016, 121, 2069-2086.	1.4	25
58	A Spatially Varying Scaling Method for InSAR Tropospheric Corrections Using a Highâ€Resolution Weather Model. Journal of Geophysical Research: Solid Earth, 2019, 124, 4051-4068.	1.4	25
59	Improving the Resolving Power of InSAR for Earthquakes Using Time Series: A Case Study in Iran. Geophysical Research Letters, 2021, 48, e2021GL093043.	1.5	25
60	Evolution of deformation and stress changes during the caldera collapse and dyking at BÃ¡rdarbunga, 2014â€“2015: Implication for triggering of seismicity at nearby TungnafellsjÃ¶kull volcano. Earth and Planetary Science Letters, 2017, 462, 212-223.	1.8	24
61	Largeâ€scale inflation of Tungurahua volcano (Ecuador) revealed by Persistent Scatterers SAR interferometry. Geophysical Research Letters, 2014, 41, 5821-5828.	1.5	23
62	Comparison of Small Baseline Interferometric SAR Processors for Estimating Ground Deformation. Remote Sensing, 2016, 8, 330.	1.8	23
63	Decomposing DInSAR Time-Series into 3-D in Combination with GPS in the Case of Low Strain Rates: An Application to the Hyblean Plateau, Sicily, Italy. Remote Sensing, 2017, 9, 33.	1.8	22
64	Integration of SAR Data Into Monitoring of the 2014â€“2015 Holuhraun Eruption, Iceland: Contribution of the Icelandic Volcanoes Supersite and the FutureVolc Projects. Frontiers in Earth Science, 2018, 6, .	0.8	21
65	Monitoring of Surface Deformation in Northern Taiwan Using DInSAR and PSInSAR Techniques. Terrestrial, Atmospheric and Oceanic Sciences, 2010, 21, 447.	0.3	20
66	Normal faulting sequence in the Pumquâ€Xainza Rift constrained by InSAR and teleseismic bodyâ€wave seismology. Geochemistry, Geophysics, Geosystems, 2014, 15, 2947-2963.	1.0	20
67	Repeated magmatic intrusions at El Hierro Island following the 2011â€“2012 submarine eruption. Journal of Volcanology and Geothermal Research, 2017, 344, 79-91.	0.8	20
68	A New Polarimetric Persistent Scatterer Interferometry Method Using Temporal Coherence Optimization. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 6547-6555.	2.7	20
69	Constraints on the Geometry and Frictional Properties of the Main Himalayan Thrust Using Coseismic, Postseismic, and Interseismic Deformation in Nepal. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB019201.	1.4	20
70	Distributed fault slip model for the 2011 Tohokuâ€Oki earthquake from GNSS and GRACE/GOCE satellite gravimetry. Journal of Geophysical Research: Solid Earth, 2016, 121, 1114-1130.	1.4	18
71	Reconciling seismic and geodetic models of the 1989 Kilauea south flank earthquake. Geophysical Research Letters, 2002, 29, 19-1-19-4.	1.5	17
72	Determining Histories of Slip on Normal Faults With Bedrock Scarps Using Cosmogenic Nuclide Exposure Data. Tectonics, 2021, 40, e2020TC006457.	1.3	17

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73	PS-InSAR Monitoring of Landslide Activity in the Black Sea Coast of the Caucasus. Procedia Technology, 2014, 16, 404-413.	1.1	16
74	A New Method for Temporal Phase Unwrapping of Persistent Scatterers InSAR Time Series. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 4606-4615.	2.7	15
75	Geodetic investigation of plate spreading along a propagating ridge: the Eastern Volcanic Zone, Iceland. Geophysical Journal International, 2011, 187, 1175-1194.	1.0	15
76	Application of Dual-Polarimetry SAR Images in Multitemporal InSAR Processing. IEEE Geoscience and Remote Sensing Letters, 2017, 14, 1489-1493.	1.4	15
77	Earthquake Monitoring Gets Boost from New Satellite. Eos, 2015, 96, .	0.1	15
78	Deformation due to geothermal exploitation at Reykjanes, Iceland. Journal of Volcanology and Geothermal Research, 2020, 391, 106438.	0.8	14
79	Going to Any Lengths: Solving for Fault Size and Fractal Slip for the 2016, M w 6.2 Central Tottori Earthquake, Japan, Using a Transdimensional Inversion Scheme. Journal of Geophysical Research: Solid Earth, 2019, 124, 4001-4016.	1.4	13
80	TOWARDS INSAR EVERYWHERE, ALL THE TIME, WITH SENTINEL-1. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 0, XLI-B4, 763-766.	0.2	13
81	Crustal movements due to Icelandâ€™s shrinking ice caps mimic magma inflow signal at Katla volcano. Scientific Reports, 2015, 5, 10285.	1.6	12
82	Imaging TorfajÃ¶kull's Magmatic Plumbing System With Seismic Interferometry and Phase Velocity Surface Wave Tomography. Journal of Geophysical Research: Solid Earth, 2019, 124, 2920-2940.	1.4	12
83	The 2008 Eruptive Unrest at Cerro Azul Volcano (GalÃ¡pagos) Revealed by InSAR Data and a Novel Method for Geodetic Modelling. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018521.	1.4	12
84	Eruption at basaltic calderas forecast by magma flow rate. Nature Geoscience, 2022, 15, 580-584.	5.4	12
85	InSAR Remote Sensing Over Decorrelating Terrains: Persistent Scattering Methods. IEEE National Radar Conference - Proceedings, 2007, , .	0.0	11
86	Monitoring a glacier in southeastern Iceland with the portable Terrestrial Radar Interferometer. , 2012, , .		7
87	A volcano's sharp intake of breath. Nature Geoscience, 2012, 5, 686-687.	5.4	7
88	Ground Deformation After a Caldera Collapse: Contributions of Magma Inflow and Viscoelastic Response to the 2015â€“2018 Deformation Field Around BÃ¡rÃ°arbunga, Iceland. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB020157.	1.4	7
89	Insights Into the Stress Field Around BÃ¡rarbunga Volcano From the 2014/2015 Holuhraun Rifting Event. Journal of Geophysical Research: Solid Earth, 2018, 123, 3238-3249.	1.4	6
90	Rift Focusing and Magmatism During Lateâ€Stage Rifting in Afar. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB021542.	1.4	6

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91	Identification of subsiding areas undergoing significant magmatic carbon dioxide degassing, along the northern shore of Lake Kivu, East African Rift. Journal of Volcanology and Geothermal Research, 2018, 363, 40-49.	0.8	5
92	Magma Flow Rates and Temporal Evolution of the 2012â€“2014 Postâ€Eruptive Intrusions at El Hierro, Canary Islands. Journal of Geophysical Research: Solid Earth, 2019, 124, 12576-12592.	1.4	5
93	Exploiting InSAR on a Large Scale for Tectonics and Volcano Monitoring. , 2020, , .		5
94	Ground and Satellite-Based Methods of Measuring Deformation at a UK Landslide Observatory: Comparison and Integration. Remote Sensing, 2022, 14, 2836.	1.8	5
95	Multi-temporal InSAR for Deformation Monitoring of the Granada and Padul Faults and the Surrounding Area (Betic Cordillera, Southern Spain). Procedia Technology, 2014, 16, 886-896.	1.1	4
96	Comparison of in situ and interferometric synthetic aperture radar monitoring to assess bridge thermal expansion. Proceedings of the Institution of Civil Engineers - Smart Infrastructure and Construction, 2022, 175, 73-91.	1.1	4
97	Climatic control on Icelandic volcanic activity during the mid-Holocene: REPLY. Geology, 2018, 46, e444-e444.	2.0	3
98	Investigation of Integrated Twin Corner Reflectors Designed for 3-D InSAR Applications. IEEE Geoscience and Remote Sensing Letters, 2020, 17, 1013-1016.	1.4	3
99	Integration of Sentinel-1 Interferometry and GNSS Networks for Derivation of 3-D Surface Changes. IEEE Geoscience and Remote Sensing Letters, 2021, 18, 692-696.	1.4	3
100	Improvements in the Licsar Generator of Sentinel-1 Interferograms. , 2021, , .		3
101	GRACE Gravity Data to Enhance the Modeling of Coseismic Slip Distribution for the 2011 Tohoku-Oki Earthquake. International Association of Geodesy Symposia, 2015, , 477-483.	0.2	2
102	Evaluation of the Multilook Size in Polarimetric Optimization of Differential SAR Interferograms. IEEE Geoscience and Remote Sensing Letters, 2018, 15, 1407-1411.	1.4	2
103	InSAR and A-InSAR: Theory. , 2014, , 1-15.		1
104	Towards Improved Forecasting of Volcanic Hazards Using Machine Learning Applied to InSAR Data. , 2021, , .		1
105	Investigation of the Phase Bias in the Short Term Interferograms. , 2021, , .		1
106	Integration of Remote Sensing Data with Bridge Geometric and Numerical Models for Detection of Unusual Behaviours. , 2021, , .		0
107	InSAR and A-InSAR: Theory. , 2015, , 1171-1184.		0