

# Geoffrey Wadge

## List of Publications by Year in descending order

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49  
papers

2,058  
citations

218381

26  
h-index

233125

45  
g-index

49  
all docs

49  
docs citations

49  
times ranked

1570  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | The variation of magma discharge during basaltic eruptions. <i>Journal of Volcanology and Geothermal Research</i> , 1981, 11, 139-168.   | 0.8 | 255       |
| 2  | Magma production and growth of the lava dome of the Soufriere Hills Volcano, Montserrat, West Indies: November 1995 to December 1997. <i>Geophysical Research Letters</i> , 1998, 25, 3421-3424.                       | 1.5 | 157       |
| 3  | Steady state volcanism: Evidence from eruption histories of polygenetic volcanoes. <i>Journal of Geophysical Research</i> , 1982, 87, 4035-4049.   | 3.3 | 134       |
| 4  | Chapter 1 An overview of the eruption of Soufriere Hills Volcano, Montserrat from 2000 to 2010. <i>Geological Society Memoir</i> , 2014, 39, 1-40.   | 0.9 | 114       |
| 5  | Atmospheric models, GPS and InSAR measurements of the tropospheric water vapour field over Mount Etna. <i>Geophysical Research Letters</i> , 2002, 29, 11-1-11-4.  | 1.5 | 101       |
| 6  | Inferring the lithology of borehole rocks by applying neural network classifiers to downhole logs: an example from the Ocean Drilling Program. <i>Geophysical Journal International</i> , 1999, 136, 477-491.          | 1.0 | 85        |
| 7  | Measuring large topographic change with InSAR: Lava thicknesses, extrusion rate and subsidence rate at Santiaguito volcano, Guatemala. <i>Earth and Planetary Science Letters</i> , 2012, 335-336, 216-225.            | 1.8 | 82        |
| 8  | Lava production at Soufriere Hills Volcano, Montserrat: 1995-2009. <i>Geophysical Research Letters</i> , 2010, 37, .   | 1.5 | 69        |
| 9  | Rapid topographic change measured by high-resolution satellite radar at Soufriere Hills Volcano, Montserrat, 2008-2010. <i>Journal of Volcanology and Geothermal Research</i> , 2011, 199, 142-152.                    | 0.8 | 68        |
| 10 | Simple stochastic modelling of the eruption history of a basaltic volcano: Nyamuragira, Zaire. <i>Bulletin of Volcanology</i> , 1994, 56, 87-97.   | 1.1 | 66        |
| 11 | Growth of the lava dome and extrusion rates at Soufriere Hills Volcano, Montserrat, West Indies: 2005-2008. <i>Geophysical Research Letters</i> , 2010, 37, .  | 1.5 | 52        |
| 12 | The magma budget of Volcan Arenal, Costa Rica from 1968 to 1980. <i>Journal of Volcanology and Geothermal Research</i> , 1983, 19, 281-302.  | 0.8 | 48        |
| 13 | Ground deformation at Soufriere Hills Volcano, Montserrat during 1998-2000 measured by radar interferometry and GPS. <i>Journal of Volcanology and Geothermal Research</i> , 2006, 152, 157-173.                       | 0.8 | 46        |
| 14 | Stress field control of eruption dynamics at a rift volcano: Nyamuragira, D.R.Congo. <i>Journal of Volcanology and Geothermal Research</i> , 2011, 207, 1-15.  | 0.8 | 45        |
| 15 | Lava dome growth and mass wasting measured by a time series of ground-based radar and seismicity observations. <i>Journal of Geophysical Research</i> , 2008, 113, .   | 3.3 | 43        |
| 16 | Similarities and differences in the historical records of lava dome-building volcanoes: Implications for understanding magmatic processes and eruption forecasting. <i>Earth-Science Reviews</i> , 2016, 160, 240-263. | 4.0 | 42        |
| 17 | The magma budget of Volcán Arenal, Costa Rica from 1980 to 2004. <i>Journal of Volcanology and Geothermal Research</i> , 2006, 157, 60-74.   | 0.8 | 41        |
| 18 | Decaying Lava Extrusion Rate at El Reventador Volcano, Ecuador, Measured Using High-Resolution Satellite Radar. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 9966-9988.                            | 1.4 | 41        |

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|----|---|-----|-----------|
| 19 | Insights into processes and deposits of hazardous vulcanian explosions at Soufrière Hills Volcano during 2008 and 2009 (Montserrat, West Indies). <i>Geophysical Research Letters</i> , 2010, 37, .                         | 1.5 | 40        |
| 20 | The application of imaging spectrometry data to mapping alteration zones associated with gold mineralization in southern Spain. <i>International Journal of Remote Sensing</i> , 1996, 17, 331-350.                         | 1.3 | 39        |
| 21 | Historical Volcanism and the State of Stress in the East African Rift System. <i>Frontiers in Earth Science</i> , 2016, 4, .  | 0.8 | 37        |
| 22 | Chapter 2 Cyclic phenomena at the Soufrière Hills Volcano, Montserrat. <i>Geological Society Memoir</i> , 2014, 39, 41-60.  | 0.9 | 34        |
| 23 | The effects of vegetation on the ability to map soils using imaging spectrometer data. <i>International Journal of Remote Sensing</i> , 1994, 15, 63-86.  | 1.3 | 32        |
| 24 | The potential of GIS modelling of gravity flows and slope instabilities. <i>International Journal of Geographical Information Science</i> , 1988, 2, 143-152.   | 2.2 | 30        |
| 25 | Numerical modelling of the growth dynamics of a simple silicic lava dome. <i>Geophysical Research Letters</i> , 2003, 30, .   | 1.5 | 28        |
| 26 | Towards Operational Repeat-Pass SAR Interferometry at Active Volcanoes. <i>Natural Hazards</i> , 2004, 33, 47-76.   | 1.6 | 27        |
| 27 | Using satellite radar amplitude imaging for monitoring syn-eruptive changes in surface morphology at an ice-capped stratovolcano. <i>Remote Sensing of Environment</i> , 2018, 209, 480-488.                                | 4.6 | 26        |
| 28 | Post-emplacement lava subsidence and the accuracy of ERS InSAR digital elevation models of volcanoes. <i>International Journal of Remote Sensing</i> , 2001, 22, 819-828.   | 1.3 | 23        |
| 29 | Spaceborne radar measurements of the eruption of Soufrière Hills Volcano, Montserrat. <i>Geological Society Memoir</i> , 2002, 21, 583-594.   | 0.9 | 23        |
| 30 | Use of a portable topographic mapping millimetre wave radar at an active lava flow. <i>Geophysical Research Letters</i> , 2006, 33, .   | 1.5 | 21        |
| 31 | Pulsatory andesite lava flow at Bagana Volcano. <i>Geochemistry, Geophysics, Geosystems</i> , 2012, 13, .   | 1.0 | 21        |
| 32 | Dome growth, collapse, and valley fill at Soufrière Hills Volcano, Montserrat, from 1995 to 2013: Contributions from satellite radar measurements of topographic change. , 2016, 12, 1300-1315.                             |     | 21        |
| 33 | Identification and analysis of the alignments of point-like features in remotely-sensed imagery: Volcanic cones in the Pinacate Volcanic Field, Mexico. <i>International Journal of Remote Sensing</i> , 1989, 10, 455-474. | 1.3 | 18        |
| 34 | Evaporation of groundwater from arid playas measured by c-band sar. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2003, 41, 1641-1650.  | 2.7 | 18        |
| 35 | Coupled subdaily and multiweek cycles during the lava dome eruption of Soufrière Hills Volcano, Montserrat. <i>Journal of Geophysical Research: Solid Earth</i> , 2013, 118, 1895-1903.                                     | 1.4 | 17        |
| 36 | Modeling the backscatter response due to salt crust development. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2001, 39, 2307-2310.   | 2.7 | 16        |

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|----|--|-----|-----------|
| 37 | A strategy for the observation of volcanism on Earth from space. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2003, 361, 145-156.                    | 1.6 | 16        |
| 38 | Lava flow morphology at an erupting andesitic stratovolcano: A satellite perspective on El Reventador, Ecuador. <i>Journal of Volcanology and Geothermal Research</i> , 2019, 372, 34-47.              | 0.8 | 14        |
| 39 | Monitoring playa sedimentation using sequential radar images. <i>Terra Nova</i> , 1994, 6, 391-396.  | 0.9 | 12        |
| 40 | Persistent growth of a young andesite lava cone: Bagana volcano, Papua New Guinea. <i>Journal of Volcanology and Geothermal Research</i> , 2018, 356, 304-315.   | 0.8 | 11        |
| 41 | An objective method for mapping hazardous flow deposits from the stratigraphic record of stratovolcanoes: a case example from Montagne Pelée. <i>Bulletin of Volcanology</i> , 2001, 63, 98-111.       | 1.1 | 8         |
| 42 | Multi-year Satellite Observations of Sulfur Dioxide Gas Emissions and Lava Extrusion at Bagana Volcano, Papua New Guinea. <i>Frontiers in Earth Science</i> , 2019, 7, .                               | 0.8 | 8         |
| 43 | The Variability of Refractivity in the Atmospheric Boundary Layer of a Tropical Island Volcano Measured by Ground-Based Interferometric Radar. <i>Boundary-Layer Meteorology</i> , 2016, 161, 309-333. | 1.2 | 7         |
| 44 | Chapter 13 AVTIS observations of lava dome growth at Soufrière Hills Volcano, Montserrat: 2004 to 2011. <i>Geological Society Memoir</i> , 2014, 39, 229-240.  | 0.9 | 6         |
| 45 | Mapping water vapour variability over a mountainous tropical island using InSAR and an atmospheric model for geodetic observations. <i>Remote Sensing of Environment</i> , 2020, 237, 111560.          | 4.6 | 5         |
| 46 | Imaging a growing lava dome with a portable radar. <i>Eos</i> , 2006, 87, 226.   | 0.1 | 4         |
| 47 | Geological Lineament Detection Using The Hough Transform. , 0, , .   |     | 3         |
| 48 | Geological remote sensing of rocky coasts. <i>Geological Magazine</i> , 1988, 125, 495-505.  | 0.9 | 3         |
| 49 | Simple stochastic modelling of the eruption history of a basaltic volcano: Nyamuragira, Zaire. <i>Bulletin of Volcanology</i> , 1994, 56, 87-97.   | 1.1 | 1         |