

Virginie Pinel

List of Publications by Year in descending order

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Version: 2024-02-01

59
papers

2,205
citations

218677

26
h-index

223800

46
g-index

75
all docs

75
docs citations

75
times ranked

1941
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | The effect of edifice load on magma ascent beneath a volcano. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2000, 358, 1515-1532. | 3.4 | 160 |
| 2 | Frequency and magnitude of volcanic eruptions controlled by magma injection and buoyancy. <i>Nature Geoscience</i> , 2014, 7, 126-130. | 12.9 | 156 |
| 3 | Magma storage and horizontal dyke injection beneath a volcanic edifice. <i>Earth and Planetary Science Letters</i> , 2004, 221, 245-262. | 4.4 | 143 |
| 4 | Causes and mechanisms of the 2011–2012 El Hierro (Canary Islands) submarine eruption. <i>Journal of Geophysical Research: Solid Earth</i> , 2013, 118, 823-839. | 3.4 | 117 |
| 5 | Volcanology: Lessons learned from Synthetic Aperture Radar imagery. <i>Journal of Volcanology and Geothermal Research</i> , 2014, 289, 81-113. | 2.1 | 116 |
| 6 | Magma chamber behavior beneath a volcanic edifice. <i>Journal of Geophysical Research</i> , 2003, 108, . | 3.3 | 100 |
| 7 | Mexico City Subsidence Measured by InSAR Time Series: Joint Analysis Using PS and SBAS Approaches. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2012, 5, 1312-1326. | 4.9 | 96 |
| 8 | How caldera collapse shapes the shallow emplacement and transfer of magma in active volcanoes. <i>Earth and Planetary Science Letters</i> , 2015, 431, 287-293. | 4.4 | 78 |
| 9 | The challenging retrieval of the displacement field from InSAR data for andesitic stratovolcanoes: Case study of Popocatepetl and Colima Volcano, Mexico. <i>Journal of Volcanology and Geothermal Research</i> , 2011, 200, 49-61. | 2.1 | 77 |
| 10 | Icelandic rhythmicity: Annual modulation of land elevation and plate spreading by snow load. <i>Geophysical Research Letters</i> , 2006, 33, . | 4.0 | 68 |
| 11 | Climate effects on volcanism: influence on magmatic systems of loading and unloading from ice mass variations, with examples from Iceland. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 2519-2534. | 3.4 | 63 |
| 12 | Some consequences of volcanic edifice destruction for eruption conditions. <i>Journal of Volcanology and Geothermal Research</i> , 2005, 145, 68-80. | 2.1 | 59 |
| 13 | Discriminating volcano deformation due to magma movements and variable surface loads: application to Katla subglacial volcano, Iceland. <i>Geophysical Journal International</i> , 2007, 169, 325-338. | 2.4 | 59 |
| 14 | A two-chamber magma model as a source of deformation at Grámsvötn Volcano, Iceland. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 4666-4683. | 3.4 | 56 |
| 15 | Seismicity and deformation induced by magma accumulation at three basaltic volcanoes. <i>Journal of Geophysical Research</i> , 2008, 113, . | 3.3 | 52 |
| 16 | A constant influx model for dike propagation: Implications for magma reservoir dynamics. <i>Journal of Geophysical Research</i> , 2010, 115, . | 3.3 | 40 |
| 17 | Influence of surface load variations on eruption likelihood: application to two Icelandic subglacial volcanoes, Grámsvötn and Katla. <i>Geophysical Journal International</i> , 2010, , . | 2.4 | 39 |
| 18 | Change detection matrix for multitemporal filtering and change analysis of SAR and PolSAR image time series. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2015, 107, 64-76. | 11.1 | 36 |

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|----|--|------|-----------|
| 19 | On the relationship between cycles of eruptive activity and growth of a volcanic edifice. <i>Journal of Volcanology and Geothermal Research</i> , 2010, 194, 150-164. | 2.1 | 35 |
| 20 | Caldera formation by magma withdrawal from a reservoir beneath a volcanic edifice. <i>Earth and Planetary Science Letters</i> , 2005, 230, 273-287. | 4.4 | 34 |
| 21 | Magma Propagation at Piton de la Fournaise From Joint Inversion of InSAR and GNSS. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 1361-1387. | 3.4 | 33 |
| 22 | Seismic and geodetic insights into magma accumulation at Katla subglacial volcano, Iceland: 1999 to 2005. <i>Journal of Geophysical Research</i> , 2008, 113, . | 3.3 | 30 |
| 23 | Mapping the 2010 Merapi pyroclastic deposits using dual-polarization Synthetic Aperture Radar (SAR) data. <i>Remote Sensing of Environment</i> , 2015, 158, 180-192. | 11.0 | 30 |
| 24 | Volume, Effusion Rate, and Lava Transport During the 2021 Fagradalsfjall Eruption: Results From Near Real-time Photogrammetric Monitoring. <i>Geophysical Research Letters</i> , 2022, 49, . | 4.0 | 30 |
| 25 | Understanding the link between circumferential dikes and eruptive fissures around calderas based on numerical and analog models. <i>Geophysical Research Letters</i> , 2016, 43, 6212-6219. | 4.0 | 29 |
| 26 | Unexpected large eruptions from buoyant magma bodies within viscoelastic crust. <i>Nature Communications</i> , 2020, 11, 2403. | 12.8 | 29 |
| 27 | Consequences of volcano sector collapse on magmatic storage zones: Insights from numerical modeling. <i>Journal of Volcanology and Geothermal Research</i> , 2013, 252, 29-37. | 2.1 | 28 |
| 28 | InSAR observations and models of crustal deformation due to a glacial surge in Iceland. <i>Geophysical Journal International</i> , 2014, 198, 1329-1341. | 2.4 | 28 |
| 29 | Coseismic displacement field and slip distribution of the 2005 Kashmir earthquake from SAR amplitude image correlation and differential interferometry. <i>Geophysical Journal International</i> , 2013, 193, 29-46. | 2.4 | 27 |
| 30 | Cointrusive shear displacement by sill intrusion in a detachment: A numerical approach. <i>Geophysical Research Letters</i> , 2014, 41, 1937-1943. | 4.0 | 27 |
| 31 | A two-step model for dynamical dike propagation in two dimensions: Application to the July 2001 Etna eruption. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 1107-1125. | 3.4 | 25 |
| 32 | Conditions for detection of ground deformation induced by conduit flow and evolution. <i>Journal of Geophysical Research</i> , 2011, 116, . | 3.3 | 24 |
| 33 | Possible deep connection between volcanic systems evidenced by sequential assimilation of geodetic data. <i>Scientific Reports</i> , 2018, 8, 11702. | 3.3 | 24 |
| 34 | Likelihood of basaltic eruptions as a function of volatile content and volcanic edifice size. <i>Journal of Volcanology and Geothermal Research</i> , 2004, 137, 201-217. | 2.1 | 23 |
| 35 | Large-scale inflation of Tungurahua volcano (Ecuador) revealed by Persistent Scatterers SAR interferometry. <i>Geophysical Research Letters</i> , 2014, 41, 5821-5828. | 4.0 | 23 |
| 36 | Assimilation of Deformation Data for Eruption Forecasting: Potentiality Assessment Based on Synthetic Cases. <i>Frontiers in Earth Science</i> , 2017, 5, . | 1.8 | 23 |

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|----|---|-----|-----------|
| 37 | Magma Ascent and Eruption Triggered by Cratering on the Moon. <i>Geophysical Research Letters</i> , 2018, 45, 6408-6416. | 4.0 | 19 |
| 38 | The 2020 Eruption and Large Lateral Dike Emplacement at Taal Volcano, Philippines: Insights From Satellite Radar Data. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL092803. | 4.0 | 19 |
| 39 | Temporal evolution of magma flow and degassing conditions during dome growth, insights from 2D numerical modeling. <i>Journal of Volcanology and Geothermal Research</i> , 2017, 333-334, 116-133. | 2.1 | 13 |
| 40 | Impact of climate change on volcanic processes: current understanding and future challenges. <i>Bulletin of Volcanology</i> , 2022, 84, . | 3.0 | 13 |
| 41 | Post-emplacement dynamics of andesitic lava flows at VolcÃ¡n de Colima, Mexico, revealed by radar and optical remote sensing data. <i>Journal of Volcanology and Geothermal Research</i> , 2019, 381, 1-15. | 2.1 | 12 |
| 42 | On the Propagation Path of Magma-Filled Dikes and Hydrofractures: The Competition Between External Stress, Internal Pressure, and Crack Length. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 2064-2081. | 2.5 | 12 |
| 43 | Fusion of D-InSAR and sub-pixel image correlation measurements for coseismic displacement field estimation: Application to the Kashmir earthquake (2005). <i>International Journal of Image and Data Fusion</i> , 2012, 3, 71-92. | 1.7 | 11 |
| 44 | Absence of Detectable Precursory Deformation and Velocity Variation Before the Large Dome Collapse of July 2015 at VolcÃ¡n de Colima, Mexico. <i>Frontiers in Earth Science</i> , 2018, 6, . | 1.8 | 11 |
| 45 | What Triggers Caldera Ring-Fault Subsidence at Ambrym Volcano? Insights From the 2015 Dike Intrusion and Eruption. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB020277. | 3.4 | 11 |
| 46 | Fuzzy Uncertainty Representations of Coseismic Displacement Measurements Issued From SAR Imagery. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2012, 61, 1278-1286. | 4.7 | 8 |
| 47 | Magma ascent at floor-fractured craters diagnoses the lithospheric stress state on the Moon. <i>Earth and Planetary Science Letters</i> , 2020, 530, 115889. | 4.4 | 8 |
| 48 | Combining InSAR and GNSS to Track Magma Transport at Basaltic Volcanoes. <i>Remote Sensing</i> , 2019, 11, 2236. | 4.0 | 6 |
| 49 | Characterizing the physical properties of gelatin, a classic analog for the brittle elastic crust, insight from numerical modeling. <i>Tectonophysics</i> , 2021, 812, 228901. | 2.2 | 6 |
| 50 | Influence of pre-existing volcanic edifice geometry on caldera formation. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a. | 4.0 | 5 |
| 51 | Assimilation of D-InSAR and sub-pixel image correlation displacement measurements for coseismic fault parameter estimation. , 2010, , . | | 3 |
| 52 | Magma ascent and emplacement below floor fractured craters on the Moon from floor uplift and fracture length. <i>Physics of the Earth and Planetary Interiors</i> , 2021, 312, 106658. | 1.9 | 3 |
| 53 | Buoyancy Versus Local Stress Field Control on the Velocity of Magma Propagation: Insight From Analog and Numerical Modelling. <i>Frontiers in Earth Science</i> , 2022, 10, . | 1.8 | 3 |
| 54 | Fusion of prior information and multi-scales local frequencies to facilitate D-InSAR phase unwrapping. , 2012, , . | | 2 |

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|----|---|-----|-----------|
| 55 | The Contribution of SAR Data to Volcanology and Subsidence Studies. , 2016, , 221-262. | | 2 |
| 56 | Unrest at Cayambe Volcano revealed by SAR imagery and seismic activity after the Pedernales subduction earthquake, Ecuador (2016). Journal of Volcanology and Geothermal Research, 2022, 428, 107577. | 2.1 | 2 |
| 57 | Fuzzy vs probability uncertainty analysis of seismic displacement measurements issued from D-InSAR and SAR image correlation measurements: Application to the Kashmir earthquake (2005). , 2011, , . | | 1 |
| 58 | Displacement Measurements. , 2014, , 251-282. | | 1 |
| 59 | EFIDIR : extraction et fusion d'informations pour la mesure de déplacements par imagerie rad. Traitement Du Signal, 2011, 28, 375-416. | 1.3 | 0 |