Sonia Calvari

List of Publications by Citations

123 papers	4,140 citations	37 h-index	60 g-index
139 ext. papers	4,641 ext. citations	2.7 avg, IF	5.29 L-index

#	Paper	IF	Citations
123	A multi-disciplinary study of the 2002–03 Etna eruption: insights into a complex plumbing system. *Bulletin of Volcanology*, **2005**, 67, 314-330	2.4	240
122	Lava effusion rate definition and measurement: a review. *Bulletin of Volcanology*, **2007**, 70, 1-22	2.4	204
121	Strombolian explosive styles and source conditions: insights from thermal (FLIR) video. *Bulletin of Volcanology*, **2007**, 69, 769-784	2.4	182
120	Dynamics of the December 2002 flank failure and tsunami at Stromboli volcano inferred by volcanological and geophysical observations. *Geophysical Research Letters*, **2003**, 30,	4.9	151
119	Formation of lava tubes and extensive flow field during the 1991–1993 eruption of Mount Etna. *Journal of Geophysical Research*, **1998**, 103, 27291-27301		147
118	Volcano surveillance using infrared cameras. *Earth-Science Reviews*, **2011**, 106, 63-91	10.2	121
117	Etna 2004–2005: An archetype for geodynamically-controlled effusive eruptions. *Geophysical Research Letters*, **2005**, 32,	4.9	112
116	Chronology and complex volcanic processes during the 2002–2003 flank eruption at Stromboli volcano (Italy) reconstructed from direct observations and surveys with a handheld thermal camera. *Journal of Geophysical Research*, **2005**, 110,		110
115	Effusion rate estimations during the 1999 summit eruption on Mount Etna, and growth of two distinct lava flow fields. *Journal of Volcanology and Geothermal Research*, **2003**, 119, 107-123	2.8	109
114	The volcanic ash problem. *Journal of Volcanology and Geothermal Research*, **2003**, 122, 1-5	2.8	107
113	Lava tube morphology on Etna and evidence for lava flow emplacement mechanisms. *Journal of Volcanology and Geothermal Research*, **1999**, 90, 263-280	2.8	99
112	The 5 April 2003 vulcanian paroxysmal explosion at Stromboli volcano (Italy) from field observations and thermal data. *Journal of Volcanology and Geothermal Research*, **2006**, 149, 160-175	2.8	91
111	Birth, growth and morphologic evolution of the "laghetto" cinder cone during the 2001 Etna eruption. *Journal of Volcanology and Geothermal Research*, **2004**, 132, 225-239	2.8	90
110	The initial phases of the 2008–2009 Mount Etna eruption: A multidisciplinary approach for hazard assessment. *Journal of Geophysical Research*, **2011**, 116,		76
109	The changing morphology of an open lava channel on Mt. Etna. *Bulletin of Volcanology*, **2006**, 68, 497-515	2.4	73
108	The 2007 Stromboli eruption: Event chronology and effusion rates using thermal infrared data. *Journal of Geophysical Research*, **2010**, 115,		71
107	Thirty years of satellite-derived lava discharge rates at Etna: Implications for steady volumetric output. *Journal of Geophysical Research*, **2011**, 116,		67

106	Lava effusion rates from hand-held thermal infrared imagery: an example from the June 2003 effusive activity at Stromboli. *Bulletin of Volcanology*, **2005**, 68, 107-117	2.4	67
105	A year of lava fountaining at Etna: Volumes from SEVIRI. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	64
104	Multidisciplinary approach yields insight into mt. etna eruption. *Eos*, **2001**, 82, 653-653	1.5	62
103	An unloading foam model to constrain Etna's 11–13 January 2011 lava fountaining episode. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		58
102	Pyroclastic density currents resulting from the interaction of basaltic magma with hydrothermally altered rock: an example from the 2006 summit eruptions of Mount Etna, Italy. *Bulletin of Volcanology*, **2008**, 70, 1249-1268	2.4	57
101	The morphology and evolution of the Stromboli 2002–2003 lava flow field: an example of a basaltic flow field emplaced on a steep slope. *Bulletin of Volcanology*, **2007**, 69, 661-679	2.4	55
100	Volcanic Gas Emissions from the Summit Craters and Flanks of Mt. Etna, 1987–2000. *Geophysical Monograph Series*, **2004**, 111-128	1.1	52
99	Pulsed lava effusion at Mount Etna during 2001. *Journal of Volcanology and Geothermal Research*, **2004**, 137, 231-246	2.8	51
98	Lava effusion - A slow fuse for paroxysms at Stromboli volcano?. *Earth and Planetary Science Letters*, **2011**, 301, 317-323	5.3	46
97	Eruptive processes leading to the most explosive lava fountain at Etna volcano: The 23 November 2013 episode. *Geophysical Research Letters*, **2014**, 41, 4912-4919	4.9	44
96	Major effusive eruptions and recent lava fountains: Balance between expected and erupted magma volumes at Etna volcano. *Geophysical Research Letters*, **2013**, 40, 6069-6073	4.9	44
95	Development of tumuli in the medial portion of the 1983 aa flow-field, Mount Etna, Sicily. *Journal of Volcanology and Geothermal Research*, **2004**, 132, 173-187	2.8	44
94	Major eruptive style changes induced by structural modifications of a shallow conduit system: the 2007–2012 Stromboli case. *Bulletin of Volcanology*, **2014**, 76, 1	2.4	43
93	Instabilities in the summit region of Mount Etna during the 1999 eruption. *Bulletin of Volcanology*, **2002**, 63, 526-535	2.4	43
92	Debris-avalanche deposits of the Milo Lahar sequence and the opening of the Valle del Bove on Etna volcano (Italy). *Journal of Volcanology and Geothermal Research*, **1998**, 87, 193-209	2.8	42
91	Revisiting the 1669 Etnean eruptive crisis using a cellular automata model and implications for volcanic hazard in the Catania area. *Journal of Volcanology and Geothermal Research*, **2003**, 123, 211-230	2.8	42
90	Eruptions of Mt. Etna during the past 3,200 Years: A revised compilation integrating the historical and stratigraphic records. *Geophysical Monograph Series*, **2004**, 1-27	1.1	41
89	Shallow magma transport for the 2002–3 Mt. Etna eruption inferred from thermal infrared surveys. *Journal of Volcanology and Geothermal Research*, **2008**, 177, 301-312	2.8	39

88	The application of a long-range laser scanner for monitoring volcanic activity on Mount Etna. *Journal of Volcanology and Geothermal Research*, **2003**, 123, 203-210	2.8	38
87	UAV-based remote sensing surveys of lava flow fields: a case study from Etna's 1974 channel-fed lava flows. *Bulletin of Volcanology*, **2018**, 80, 1	2.4	37
86	Lava flow hazard modeling during the 2014–2015 Fogo eruption, Cape Verde. *Journal of Geophysical Research: Solid Earth*, **2016**, 121, 2290-2303	3.6	36
85	Conduit flow experiments help constraining the regime of explosive eruptions. *Journal of Geophysical Research*, **2010**, 115,		35
84	Geophysical precursors of the July-August 2019 paroxysmal eruptive phase and their implications for Stromboli volcano (Italy) monitoring. *Scientific Reports*, **2020**, 10, 10296	4.9	32
83	Dynamics of the shallow plumbing system investigated from borehole strainmeters and cameras during the 15 March, 2007 Vulcanian paroxysm at Stromboli volcano. *Earth and Planetary Science Letters*, **2012**, 357-358, 249-256	5.3	32
82	Thermal insights into the dynamics of Nyiragongo lava lake from ground and satellite measurements. *Journal of Geophysical Research: Solid Earth*, **2013**, 118, 5771-5784	3.6	31
81	Paroxysmal Explosions, Lava Fountains and Ash Plumes at Etna Volcano: Eruptive Processes and Hazard Implications. *Frontiers in Earth Science*, **2018**, 6,	3.5	31
80	40Ar/39Ar geochronology of Holocene basalts; examples from Stromboli, Italy. *Quaternary Geochronology*, **2011**, 6, 223-232	2.7	30
79	Dynamics of Magmas at Mount Etna. *Geophysical Monograph Series*, **2004**, 91-110	1.1	30
78	Topographic Maps of Mount Etna's Summit Craters, updated to December 2015. *Journal of Maps*, **2017**, 13, 674-683	2.2	29
77	The 2014 Effusive Eruption at Stromboli: New Insights from In Situ and Remote-Sensing Measurements. *Remote Sensing*, **2018**, 10, 2035	5	29
76	Relevance of the Chiancone volcaniclastic deposit in the recent history of Etna Volcano (Italy). *Journal of Volcanology and Geothermal Research*, **1996**, 72, 239-258	2.8	28
75	Monitoring crater-wall collapse at active volcanoes: a study of the 12 January 2013 event at Stromboli. *Bulletin of Volcanology*, **2016**, 78, 1	2.4	28
74	From source to surface: dynamics of Etna's lava fountains investigated by continuous strain, magnetic, ground and satellite thermal data. *Bulletin of Volcanology*, **2013**, 75, 1	2.4	27
73	Lava discharge during Etna's January 2011 fire fountain tracked using MSG-SEVIRI. *Bulletin of Volcanology*, **2012**, 74, 787-793	2.4	27
72	Dynamics of Strombolian Activity. *Geophysical Monograph Series*, **2013**, 39-48	1.1	26
71	Separating the thermal fingerprints of lava flows and simultaneous lava fountaining using ground-based thermal camera and SEVIRI measurements. *Geophysical Research Letters*, **2013**, 40, 5058-5063	4.9	26

70	Mt. Etna Volcano: A Seismological Framework. *Geophysical Monograph Series*, **2004**, 147-165	1.1	26
69	The 7 September 2008 Vulcanian explosion at Stromboli volcano: Multiparametric characterization of the event and quantification of the ejecta. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		25
68	Lava lake surface characterization by thermal imaging: Erta 'Ale volcano (Ethiopia). *Geochemistry, Geophysics, Geosystems*, **2008**, 9, n/a-n/a	3.6	25
67	Modeling of Ground Deformation Associated with Recent Lateral Eruptions: Mechanics of Magma Ascent and Intermediate Storage at Mt. Etna. *Geophysical Monograph Series*, **2004**, 293-306	1.1	25
66	Morphological complexities and hazards during the emplacement of channel-fed 'a'□lava flow fields: A study of the 2001 lower flow field on Etna. *Bulletin of Volcanology*, **2010**, 72, 641-656	2.4	24
65	Geological Evolution of Etna Volcano. *Geophysical Monograph Series*, **2004**, 49-63	1.1	24
64	A new approach to investigate an eruptive paroxysmal sequence using camera and strainmeter networks: Lessons from the 3□ December 2015 activity at Etna volcano. *Earth and Planetary Science Letters*, **2017**, 475, 231-241	5.3	23
63	Quantifying Effusion Rates at Active Volcanoes through Integrated Time-Lapse Laser Scanning and Photography. *Remote Sensing*, **2015**, 7, 14967-14987	5	22
62	Spatial variations in lava flow field thermal structure and effusion rate derived from very high spatial resolution hyperspectral (MIVIS) data. *Journal of Geophysical Research*, **2009**, 114,		22
61	The VEI 2 Christmas 2018 Etna Eruption: A Small But Intense Eruptive Event or the Starting Phase of a Larger One?. *Remote Sensing*, **2020**, 12, 905	5	21
60	Volcanology and Magma Geochemistry of the Present-Day Activity: Constraints on the Feeding System. *Geophysical Monograph Series*, **2013**, 19-37	1.1	20
59	Twelve Years of Ground Deformation Studies on Mt. Etna Volcano Based on Gps Surveys. *Geophysical Monograph Series*, **2004**, 321-341	1.1	18
58	Integration of Ground-Based Remote-Sensing and In Situ Multidisciplinary Monitoring Data to Analyze the Eruptive Activity of Stromboli Volcano in 2017□2018. *Remote Sensing*, **2019**, 11, 1813	5	17
57	On the time-scale of thermal cycles associated with open-vent degassing. *Bulletin of Volcanology*, **2012**, 74, 1281-1292	2.4	17
56	Valle Del Bove, Eastern Flank of Etna Volcano: a Comprehensive Model for the Opening of the Depression and Implications for Future Hazards. *Geophysical Monograph Series*, **2004**, 65-75	1.1	17
55	The Paroxysmal Event and Its Deposits. *Geophysical Monograph Series*, **2013**, 317-329	1.1	16
54	Lava flow superposition: The reactivation of flow units in compound 'a'□flows. *Journal of Volcanology and Geothermal Research*, **2010**, 194, 100-106	2.8	15
53	Overflows and Pyroclastic Density Currents in March-April 2020 at Stromboli Volcano Detected by Remote Sensing and Seismic Monitoring Data. *Remote Sensing*, **2020**, 12, 3010	5	14

52	Hazard mitigation and crisis management during major flank eruptions at Etna volcano: reporting on real experience. *Geological Society Special Publication*, **2016**, 426, 447-461	1.7	13
51	Reconstruction of the eruptive activity on the NE sector of Stromboli volcano: timing of flank eruptions since 15 ka. *Bulletin of Volcanology*, **2011**, 73, 101-112	2.4	13
50	Continuous tilt monitoring: Lesson learned from 20 years experience at Mt. Etna. *Geophysical Monograph Series*, **2004**, 307-320	1.1	12
49	Unusual sedimentary deposits on the SE side of Stromboli volcano, Italy: products of a tsunami caused by the ca. 5000 years BP Sciara del Fuoco collapse?. *Journal of Volcanology and Geothermal Research*, **2004**, 137, 329-340	2.8	12
48	Heat loss measured at a lava channel and its implications for down-channel cooling and rheology **2005**,		12
47	Satellite and Ground Remote Sensing Techniques to Trace the Hidden Growth of a Lava Flow Field: The 20142015 Effusive Eruption at Fogo Volcano (Cape Verde). *Remote Sensing*, **2018**, 10, 1115	5	12
46	The Eruptive Activity of 28 and 29 December 2002. *Geophysical Monograph Series*, **2013**, 105-115	1.1	10
45	Recognizing Eruptions of Mount Etna through Machine Learning Using Multiperspective Infrared Images. *Remote Sensing*, **2020**, 12, 970	5	9
44	Conclusion: recommendations and findings of the RED SEED working group. *Geological Society Special Publication*, **2016**, 426, 567-648	1.7	8
43	Magma emission rates from shallow submarine eruptions using airborne thermal imaging. *Remote Sensing of Environment*, **2014**, 154, 219-225	13.2	8
42	Integrated Subaerial-Submarine Morphological Evolution of the Sciara del Fuoco after the 2002 Landslide. *Geophysical Monograph Series*, **2013**, 171-182	1.1	8
41	The 5 April 2003 Explosion of Stromboli: Timing of Eruption Dynamics Using Thermal Data. *Geophysical Monograph Series*, **2013**, 305-316	1.1	8
40	The Miocene Costa Giardini diatreme, Iblean Mountains, southern Italy: model for maar-diatreme formation on a submerged carbonate platform. *Bulletin of Volcanology*, **2011**, 73, 557-576	2.4	8
39	Last 100 Ka Tephrostratigraphic Record of Mount Etna. *Geophysical Monograph Series*, **2004**, 77-89	1.1	8
38	Correction to Thirty years of satellite-derived lava discharge rates at Etna: Implications for steady volumetric output *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		7
37	The Control of Lava Flows at Mt. Etna. *Geophysical Monograph Series*, **2004**, 357-369	1.1	7
36	Formation of lava stalactites in the master tube of the 1792-1793 flow field, Mt. Etna (Italy). *American Mineralogist*, **2005**, 90, 1413-1421	2.9	7
35	Facies analysis and depositional mechanisms of hydroclastite breccias, Acicastello, eastern Sicily. *Sedimentary Geology*, **1999**, 129, 127-141	2.8	7

34	Variable Magnitude and Intensity of Strombolian Explosions: Focus on the Eruptive Processes for a First Classification Scheme for Stromboli Volcano (Italy). *Remote Sensing*, **2021**, 13, 944	5	7
33	Supporting the Development of Procedures for Communications During Volcanic Emergencies: Lessons Learnt from the Canary Islands (Spain) and Etna and Stromboli (Italy). *Advances in Volcanology*, **2017**, 289-305	0	6
32	Reactivation of Stromboli's summit craters at the end of the 2007 effusive eruption detected by thermal surveys and seismicity. *Journal of Geophysical Research: Solid Earth*, **2015**, 120, 7376-7395	3.6	6
31	Correction to "Chronology and complex volcanic processes during the 2002–2003 flank eruption at Stromboli volcano (Italy) reconstructed from direct observations and surveys with a handheld thermal camera" *Journal of Geophysical Research*, **2005**, 110,		6
30	Application of the Cellular Automata Model Sciara to the 2001 Mount Etna Crisis. *Geophysical Monograph Series*, **2004**, 343-356	1.1	6
29	Geological-Structural Framework of Stromboli Volcano, Past Collapses, and the Possible Influence on the Events of the 2002–2003 Crisis. *Geophysical Monograph Series*, **2013**, 5-17	1.1	5
28	Monitoring active volcanoes using a handheld thermal camera **2004**,		5
27	Volcanic and Seismic Activity at Stromboli Preceding the 2002–2003 Flank Eruption. *Geophysical Monograph Series*, **2013**, 93-104	1.1	4
26	Slope Failures Induced by the December 2002 Eruption at Stromboli Volcano. *Geophysical Monograph Series*, **2013**, 129-145	1.1	4
25	Scientific Community and Civil Protection Synergy During the Stromboli 2002–2003 Eruption. *Geophysical Monograph Series*, **2013**, 387-397	1.1	4
24	Magnetic Field Monitoring at Mt. Etna During the Last 20 Years. *Geophysical Monograph Series*, **2004**, 241-262	1.1	4
23	Faulting Processes and Earthquake Source Parameters at Mount Etna: State of the art and Perspectives. *Geophysical Monograph Series*, **2004**, 167-189	1.1	4
22	Plume Height Time-Series Retrieval Using Shadow in Single Spatial Resolution Satellite Images. *Remote Sensing*, **2020**, 12, 3951	5	4
21	Comparison between Automated and Manual Detection of Lava Fountains from Fixed Monitoring Thermal Cameras at Etna Volcano, Italy. *Remote Sensing*, **2022**, 14, 2392	5	4
20	Ground Deformation from Ground-Based SAR Interferometry. *Geophysical Monograph Series*, **2013**, 359-372	1.1	3
19	2002–2003 Lava Flow Eruption of Stromboli: A Contribution to Understanding Lava Discharge Mechanisms Using Periodic Digital Photogrammetry Surveys. *Geophysical Monograph Series*, **2013**, 229-246	1.1	3
18	Translations of volcanological terms: cross-cultural standards for teaching, communication, and reporting. *Bulletin of Volcanology*, **2017**, 79, 1	2.4	3
17	Understanding Lava Flow Morphologies and Structures for Hazard Assessment. *Annals of Geophysics*, **2019**, 61,	1.1	3

16	Anatomy of a Paroxysmal Lava Fountain at Etna Volcano: The Case of the 12 March 2021, Episode. *Remote Sensing*, **2021**, 13, 3052	5	3
15	The Double Landslide-Induced Tsunami. *Geophysical Monograph Series*, **2013**, 147-156	1.1	2
14	Structure of the Shallow Supply System at Stromboli Volcano, Italy, through Integration of Muography, Digital Elevation Models, Seismicity, and Ground Deformation Data. *Geophysical Monograph Series*, **2022**, 75-91	1.1	2
13	Preface Special Issue: MeMoVolc. *Annals of Geophysics*, **2019**, 62,	1.1	2
12	Deep-Sea Deposits of the Stromboli 30 December 2002 Landslide. *Geophysical Monograph Series*, **2013**, 157-169	1.1	1
11	Evolution of the Lava Flow Field by Daily Thermal and Visible Airborne Surveys. *Geophysical Monograph Series*, **2013**, 201-211	1.1	1
10	Textural and Compositional Characteristics of Lavas Emitted During the December 2002 to July 2003 Stromboli Eruption (Italy): Inferences on Magma Dynamics. *Geophysical Monograph Series*, **2013**, 213-228	1.1	1
9	Gas Flux Rate and Migration of the Magma Column. *Geophysical Monograph Series*, **2013**, 259-267	1.1	1
8	Etna avalanche deposit prompts call for hazard reassessment. *Eos*, **1999**, 80, 345	1.5	1
7	Classifying Major Explosions and Paroxysms at Stromboli Volcano (Italy) from Space. *Remote Sensing*, **2021**, 13, 4080	5	1
6	Geochemical Prediction of the 2002–2003 Stromboli Eruption from Variations in CO2 and Rn Emissions and in Helium and Carbon Isotopes. *Geophysical Monograph Series*, **2013**, 117-128	1.1	0
5	Changes in the Eruptive Style of Stromboli Volcano before the 2019 Paroxysmal Phase Discovered through SOM Clustering of Seismo-Acoustic Features Compared with Camera Images and GBInSAR Data. *Remote Sensing*, **2022**, 14, 1287	5	0
4	The Stromboli Volcano: An Integrated Study of the 2002–2003 Eruption—Introduction. *Geophysical Monograph Series*, **2013**, 1-3	1.1	
3	Seismological Insights on the Shallow Magma System. *Geophysical Monograph Series*, **2013**, 279-286	1.1	
2	Fluid Circulation and Permeability Changes in the Summit Area of Stromboli Volcano. *Geophysical Monograph Series*, **2013**, 287-303	1.1	
1	The 5 April 2003 Paroxysm at Stromboli: A Review of Geochemical Observations. *Geophysical Monograph Series*, **2013**, 347-358	1.1	