

# Alessandro Bonaccorso

## List of Publications by Citations

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88  
papers

2,564  
citations

31  
h-index

45  
g-index

97  
ext. papers

2,850  
ext. citations

3.7  
avg, IF

5.02  
L-index

#	Paper	IF	Citations
88	Magma ascent and the pressurization of Mount Etna's volcanic system. <i>Science</i> , <b>2003</b> , 299, 2061-3	33.3	168
87	Dynamics of the December 2002 flank failure and tsunami at Stromboli volcano inferred by volcanological and geophysical observations. <i>Geophysical Research Letters</i> , <b>2003</b> , 30,	4.9	151
86	Feeding system and magma storage beneath Mt. Etna as revealed by recent inflation/deflation cycles. <i>Journal of Geophysical Research</i> , <b>2008</b> , 113,		106
85	Dike emplacement forerunning the Etna July 2001 eruption modeled through continuous tilt and GPS data. <i>Geophysical Research Letters</i> , <b>2002</b> , 29, 2-1	4.9	83
84	The initial phases of the 2008-2009 Mount Etna eruption: A multidisciplinary approach for hazard assessment. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116,		76
83	Models of ground deformation from vertical volcanic conduits with application to eruptions of Mount St. Helens and Mount Etna. <i>Journal of Geophysical Research</i> , <b>1999</b> , 104, 10531-10542		70
82	Dynamic inversion of ground deformation data for modelling volcanic sources (Etna 1991-93). <i>Geophysical Research Letters</i> , <b>1996</b> , 23, 451-454	4.9	61
81	A new dyke intrusion style for the Mount Etna May 2008 eruption modelled through continuous tilt and GPS data. <i>Terra Nova</i> , <b>2009</b> , 21, 316-321	3	59
80	Analytical and 3-D numerical modelling of Mt. Etna (Italy) volcano inflation. <i>Geophysical Journal International</i> , <b>2005</b> , 163, 852-862	2.6	57
79	Fast deformation processes and eruptive activity at Mount Etna (Italy). <i>Journal of Geophysical Research</i> , <b>1996</b> , 101, 17467-17480		56
78	Composite ground deformation pattern forerunning the 2004-2005 Mount Etna eruption. <i>Journal of Geophysical Research</i> , <b>2006</b> , 111, n/a-n/a		51
77	Shear response to an intrusive episode at Mt. Etna volcano (January 1998) inferred through seismic and tilt data. <i>Tectonophysics</i> , <b>2001</b> , 334, 61-75	3.1	50
76	Etna 2002 eruption imaged from continuous tilt and GPS data. <i>Geophysical Research Letters</i> , <b>2003</b> , 30, n/a-n/a	4.9	49
75	Lava effusion [A slow fuse for paroxysms at Stromboli volcano?]. <i>Earth and Planetary Science Letters</i> , <b>2011</b> , 301, 317-323	5.3	46
74	Eruptive processes leading to the most explosive lava fountain at Etna volcano: The 23 November 2013 episode. <i>Geophysical Research Letters</i> , <b>2014</b> , 41, 4912-4919	4.9	44
73	Major effusive eruptions and recent lava fountains: Balance between expected and erupted magma volumes at Etna volcano. <i>Geophysical Research Letters</i> , <b>2013</b> , 40, 6069-6073	4.9	44
72	Major eruptive style changes induced by structural modifications of a shallow conduit system: the 2007-2012 Stromboli case. <i>Bulletin of Volcanology</i> , <b>2014</b> , 76, 1	2.4	43

71	New integrated geodetic monitoring system at Stromboli volcano (Italy). <i>Engineering Geology</i> , <b>2005</b> , 79, 13-31	6	41
70	Dynamics of a lava fountain revealed by geophysical, geochemical and thermal satellite measurements: The case of the 10 April 2011 Mt Etna eruption. <i>Geophysical Research Letters</i> , <b>2011</b> , 38, n/a-n/a	4.9	39
69	Elasto-plastic modeling of volcano ground deformation. <i>Earth and Planetary Science Letters</i> , <b>2010</b> , 296, 311-318	5.3	39
68	Multidisciplinary investigation on a lava fountain preceding a flank eruption: The 10 May 2008 Etna case. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2011</b> , 12, n/a-n/a	3.6	38
67	Imaging composite dike propagation (Etna, 2002 case). <i>Journal of Geophysical Research</i> , <b>2006</b> , 111, n/a-n/a		38
66	Stromboli 2007 eruption: Deflation modeling to infer shallow-intermediate plumbing system. <i>Geophysical Research Letters</i> , <b>2008</b> , 35,	4.9	34
65	Evidence of a dyke-sheet intrusion at Stromboli Volcano Inferred through continuous tilt. <i>Geophysical Research Letters</i> , <b>1998</b> , 25, 4225-4228	4.9	34
64	Magma storage, eruptive activity and flank instability: Inferences from ground deformation and gravity changes during the 1993-2000 recharging of Mt. Etna volcano. <i>Journal of Volcanology and Geothermal Research</i> , <b>2011</b> , 200, 245-254	2.8	33
63	Tectonic features of the Lipari-Vulcano complex (Aeolian archipelago, Italy) from 10 years (1996-2006) of GPS data. <i>Terra Nova</i> , <b>2008</b> , 20, 370-377	3	33
62	Intrusive Mechanisms at Mt. Etna Forerunning the July-August 2001 Eruption from Seismic and Ground Deformation Data. <i>Pure and Applied Geophysics</i> , <b>2004</b> , 161, 1469-1487	2.2	33
61	Dynamics of the shallow plumbing system investigated from borehole strainmeters and cameras during the 15 March, 2007 Vulcanian paroxysm at Stromboli volcano. <i>Earth and Planetary Science Letters</i> , <b>2012</b> , 357-358, 249-256	5.3	32
60	The March 1981 Mount Etna eruption inferred through ground deformation modelling. <i>Physics of the Earth and Planetary Interiors</i> , <b>1999</b> , 112, 125-136	2.3	32
59	Dislocation modelling of the 1989 dike intrusion into the Flank of Mount Etna, Sicily. <i>Journal of Geophysical Research</i> , <b>1993</b> , 98, 4261-4268		32
58	Dike deflection modelling for inferring magma pressure and withdrawal, with application to Etna 2001 case. <i>Earth and Planetary Science Letters</i> , <b>2010</b> , 293, 121-129	5.3	31
57	Ground deformations in the Island of Pantelleria (Italy): Insights into the dynamic of the current intereruptive period. <i>Journal of Geophysical Research</i> , <b>2007</b> , 112,		31
56	Paroxysmal Explosions, Lava Fountains and Ash Plumes at Etna Volcano: Eruptive Processes and Hazard Implications. <i>Frontiers in Earth Science</i> , <b>2018</b> , 6,	3.5	31
55	Dynamics of Magmas at Mount Etna. <i>Geophysical Monograph Series</i> , <b>2004</b> , 91-110	1.1	30
54	Mt Etna volcano: modelling of ground deformation patterns of recent eruptions and considerations on the associated precursors. <i>Journal of Volcanology and Geothermal Research</i> , <b>2001</b> , 109, 99-108	2.8	29

53	The 2014 Effusive Eruption at Stromboli: New Insights from In Situ and Remote-Sensing Measurements. <i>Remote Sensing</i> , <b>2018</b> , 10, 2035	5	29
52	Monitoring crater-wall collapse at active volcanoes: a study of the 12 January 2013 event at Stromboli. <i>Bulletin of Volcanology</i> , <b>2016</b> , 78, 1	2.4	28
51	From source to surface: dynamics of Etna's lava fountains investigated by continuous strain, magnetic, ground and satellite thermal data. <i>Bulletin of Volcanology</i> , <b>2013</b> , 75, 1	2.4	27
50	Insight on recent Stromboli eruption inferred from terrestrial and satellite ground deformation measurements. <i>Journal of Volcanology and Geothermal Research</i> , <b>2009</b> , 182, 172-181	2.8	26
49	Mt. Etna Volcano: A Seismological Framework. <i>Geophysical Monograph Series</i> , <b>2004</b> , 147-165	1.1	26
48	Modeling of Ground Deformation Associated with Recent Lateral Eruptions: Mechanics of Magma Ascent and Intermediate Storage at Mt. Etna. <i>Geophysical Monograph Series</i> , <b>2004</b> , 293-306	1.1	25
47	An investigation into shallow borehole tiltmeters. <i>Geophysical Research Letters</i> , <b>1999</b> , 26, 1637-1640	4.9	24
46	Interaction of volcano-tectonic fault with magma storage, intrusion and flank instability: A thirty years study at Mt. Etna volcano. <i>Journal of Volcanology and Geothermal Research</i> , <b>2013</b> , 251, 127-136	2.8	23
45	A new approach to investigate an eruptive paroxysmal sequence using camera and strainmeter networks: Lessons from the 3 <sup>rd</sup> December 2015 activity at Etna volcano. <i>Earth and Planetary Science Letters</i> , <b>2017</b> , 475, 231-241	5.3	23
44	Long-term stress-strain analysis of volcano flank instability: The eastern sector of Etna from 1980 to 2012. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2013</b> , 118, 5098-5108	3.6	23
43	Seismicity and Active Tectonics in the Etna Region: Constraints for a Seismotectonic Model. <i>Geophysical Monograph Series</i> , <b>2004</b> , 205-220	1.1	22
42	The VEI 2 Christmas 2018 Etna Eruption: A Small But Intense Eruptive Event or the Starting Phase of a Larger One?. <i>Remote Sensing</i> , <b>2020</b> , 12, 905	5	21
41	Ground deformation of the southern sector of the Aeolian islands volcanic arc from geodetic data. <i>Tectonophysics</i> , <b>2002</b> , 351, 181-192	3.1	21
40	New data from borehole strainmeters to infer lava fountain sources (Etna 2011-2012). <i>Geophysical Research Letters</i> , <b>2013</b> , 40, 3579-3584	4.9	20
39	Impulsive tilt variations on Mount Etna Volcano (1990-1993). <i>Tectonophysics</i> , <b>1997</b> , 270, 115-125	3.1	20
38	Explosive activity at Mt. Etna summit craters and source modeling by using high-precision continuous tilt. <i>Journal of Volcanology and Geothermal Research</i> , <b>2006</b> , 158, 221-234	2.8	20
37	The Tectonics and Geodynamics of Mt. Etna: Synthesis and Interpretation of Geological and Geophysical Data. <i>Geophysical Monograph Series</i> , <b>2004</b> , 29-47	1.1	20
36	FEM-based inversion for heterogeneous fault mechanisms: application at Etna volcano by DInSAR data. <i>Geophysical Journal International</i> , <b>2010</b> , 183, 765-773	2.6	19

35	Thermal expansion-contraction and slope instability of a fumarole field inferred from geodetic measurements at Vulcano. <i>Bulletin of Volcanology</i> , <b>2010</b> , 72, 791-801	2.4	19
34	The Mt. Etna Plumbing System: the Contribution of Seismic Tomography. <i>Geophysical Monograph Series</i> , <b>2004</b> , 191-204	1.1	19
33	Twelve Years of Ground Deformation Studies on Mt. Etna Volcano Based on Gps Surveys. <i>Geophysical Monograph Series</i> , <b>2004</b> , 321-341	1.1	18
32	Integration of Ground-Based Remote-Sensing and In Situ Multidisciplinary Monitoring Data to Analyze the Eruptive Activity of Stromboli Volcano in 2017-2018. <i>Remote Sensing</i> , <b>2019</b> , 11, 1813	5	17
31	Magmatic Gas Leakage at Mount Etna (Sicily, Italy): Relationships with the Volcano-Tectonic Structures, the Hydrological Pattern and the Eruptive Activity.. <i>Geophysical Monograph Series</i> , <b>2004</b> , 129-145	1.1	17
30	Valle Del Bove, Eastern Flank of Etna Volcano: a Comprehensive Model for the Opening of the Depression and Implications for Future Hazards. <i>Geophysical Monograph Series</i> , <b>2004</b> , 65-75	1.1	17
29	The borehole dilatometer network of Mount Etna: A powerful tool to detect and infer volcano dynamics. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2016</b> , 121, 4655-4669	3.6	15
28	Modeling of ALOS and COSMO-SkyMed satellite data at Mt Etna: Implications on relation between seismic activation of the Pernicana fault system and volcanic unrest. <i>Remote Sensing of Environment</i> , <b>2012</b> , 125, 64-72	13.2	15
27	Hazard mitigation and crisis management during major flank eruptions at Etna volcano: reporting on real experience. <i>Geological Society Special Publication</i> , <b>2016</b> , 426, 447-461	1.7	13
26	Twenty-five years of continuous borehole tilt and vertical displacement data at Mount Etna: Insights on long-term volcanic dynamics. <i>Geophysical Research Letters</i> , <b>2015</b> , 42, 10,222	4.9	12
25	Continuous tilt monitoring: Lesson learned from 20 years experience at Mt. Etna. <i>Geophysical Monograph Series</i> , <b>2004</b> , 307-320	1.1	12
24	Borehole Volumetric Strainmeter Calibration From a Nearby Seismic Broadband Array at Etna Volcano. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2017</b> , 122, 7729-7738	3.6	11
23	Explosive expansion of a slowly decompressed magma analogue: Evidence for delayed bubble nucleation. <i>Geochemistry, Geophysics, Geosystems</i> , <b>2013</b> , 14, 3067-3084	3.6	11
22	Deflation acting on Pantelleria island (Sicily Channel) inferred through geodetic data. <i>Earth and Planetary Science Letters</i> , <b>2000</b> , 180, 91-101	5.3	11
21	The 24 December 2018 Eruptive Intrusion at Etna Volcano as Revealed by Multidisciplinary Continuous Deformation Networks (CGPS, Borehole Strainmeters and Tiltmeters). <i>Journal of Geophysical Research: Solid Earth</i> , <b>2020</b> , 125, e2019JB019117	3.6	11
20	The L'Aquila trial. <i>Geological Society Special Publication</i> , <b>2015</b> , 419, 43-55	1.7	10
19	Coupled Short- and Medium-Term Geophysical Signals at Etna Volcano: Using Deformation and Strain to Infer Magmatic Processes From 2009 to 2017. <i>Frontiers in Earth Science</i> , <b>2018</b> , 6,	3.5	9
18	Characterization of the response of spring-based relative gravimeters during paroxysmal eruptions at Etna volcano. <i>Earth, Planets and Space</i> , <b>2014</b> , 66,	2.9	8

17	Eolo: software for the automatic on-line treatment and analysis of GPS data for environmental monitoring. <i>Computers and Geosciences</i> , <b>2002</b> , 28, 271-280	4.5	8
16	Dike propagation energy balance from deformation modeling and seismic release. <i>Geophysical Research Letters</i> , <b>2017</b> , 44, 5486-5494	4.9	7
15	The Control of Lava Flows at Mt. Etna. <i>Geophysical Monograph Series</i> , <b>2004</b> , 357-369	1.1	7
14	Variable Magnitude and Intensity of Strombolian Explosions: Focus on the Eruptive Processes for a First Classification Scheme for Stromboli Volcano (Italy). <i>Remote Sensing</i> , <b>2021</b> , 13, 944	5	7
13	Cyclic magma recharge pulses detected by high-precision strainmeter data: the case of 2017 inter-eruptive activity at Etna volcano. <i>Scientific Reports</i> , <b>2019</b> , 9, 7553	4.9	6
12	Tracking Magma Storage: New Perspectives From 40 Years (1980-2020) of Ground Deformation Source Modeling on Etna Volcano. <i>Frontiers in Earth Science</i> , <b>2021</b> , 9,	3.5	5
11	Magma Migration at Shallower Levels and Lava Fountains Sequence as Revealed by Borehole Dilatometers on Etna Volcano. <i>Frontiers in Earth Science</i> , <b>2021</b> , 9,	3.5	5
10	Advances in Understanding Intrusive, Explosive and Effusive Processes as Revealed by the Borehole Dilatometer Network on Mt. Etna Volcano. <i>Frontiers in Earth Science</i> , <b>2020</b> , 7,	3.5	4
9	Scientific Community and Civil Protection Synergy During the Stromboli 2002-2003 Eruption. <i>Geophysical Monograph Series</i> , <b>2013</b> , 387-397	1.1	4
8	Magnetic Field Monitoring at Mt. Etna During the Last 20 Years. <i>Geophysical Monograph Series</i> , <b>2004</b> , 241-262	1.1	4
7	Comparison of Integrated Geodetic Data Models and Satellite Radar Interferograms to Infer Magma Storage During the 1991-1993 Mt. Etna Eruption. <i>Pure and Applied Geophysics</i> , <b>2004</b> , 161, 1345-1357	2.2	4
6	Faulting Processes and Earthquake Source Parameters at Mount Etna: State of the art and Perspectives. <i>Geophysical Monograph Series</i> , <b>2004</b> , 167-189	1.1	4
5	A Geophysical Study of the Mount Etna Volcanic Area. <i>Geophysical Monograph Series</i> , <b>2004</b> , 273-291	1.1	3
4	Anatomy of a Paroxysmal Lava Fountain at Etna Volcano: The Case of the 12 March 2021, Episode. <i>Remote Sensing</i> , <b>2021</b> , 13, 3052	5	3
3	Balance Between Deformation and Seismic Energy Release: The Dec 2018 Double-Dike Intrusion at Mt. Etna. <i>Frontiers in Earth Science</i> , <b>2018</b> ,	3.5	2
2	Intrusive Mechanisms at Mt. Etna Forerunning the July-August 2001 Eruption from Seismic and Ground Deformation Data <b>2004</b> , 1469-1487		
1	Comparison of Integrated Geodetic Data Models and Satellite Radar Interferograms to Infer Magma Storage During the 1991-1993 Mt. Etna Eruption <b>2004</b> , 1345-1357		