Giovanni Solari

List of Publications by Year
in descending order

99 papers	2,983 citations	126907 33 h-index	189892 50 g-index
101 all docs	101 docs citations	101 times ranked	920 citing authors

#	Article	IF	Citations
1	Gust Buffeting. I: Peak Wind Velocity and Equivalent Pressure. Journal of Structural Engineering, 1993, 119, 365-382.	3.4	131
2	Characteristics of thunderstorms relevant to the wind loading of structures. Wind and Structures, an International Journal, 2015, 20, 763-791.	0.8	116
3	Separation and classification of extreme wind events from anemometric records. Journal of Wind Engineering and Industrial Aerodynamics, 2014, 126, 132-143.	3.9	96
4	Gust Buffeting. II: Dynamic Alongwind Response. Journal of Structural Engineering, 1993, 119, 383-398.	3.4	95
5	Monte Carlo simulation of wind velocity fields on complex structures. Journal of Wind Engineering and Industrial Aerodynamics, 2006, 94, 323-339.	3.9	95
6	The wind forecast for safety management of port areas. Journal of Wind Engineering and Industrial Aerodynamics, 2012, 104-106, 266-277.	3.9	95
7	Proper orthogonal decomposition in wind engineering - Part 1: A state-of-the-art and some prospects. Wind and Structures, an International Journal, 2007, 10, 153-176.	0.8	77
8	Turbulence Modeling for Gust Loading. Journal of Structural Engineering, 1987, 113, 1550-1569.	3.4	72
9	Thunderstorm response spectrum: Fundamentals and case study. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 143, 62-77.	3.9	71
10	Mathematical Model to Predict 3â€Ð Wind Loading on Buildings. Journal of Engineering Mechanics - ASCE, 1985, 111, 254-276.	2.9	69
11	Characteristics of intense winds in mountain area based on field measurement: Focusing on thunderstorm winds. Journal of Wind Engineering and Industrial Aerodynamics, 2019, 190, 166-182.	3.9	68
12	Alongwind Response Estimation: Closed Form Solution. Journal of the Structural Division, 1982, 108, 225-244.	0.2	67
13	Thunderstorm response spectrum technique: Theory and applications. Engineering Structures, 2016, 108, 28-46.	5.3	59
14	A refined analysis of thunderstorm outflow characteristics relevant to the wind loading of structures. Probabilistic Engineering Mechanics, 2018, 54, 9-24.	2.7	59
15	Equivalent Wind Spectrum Technique: Theory and Applications. Journal of Structural Engineering, 1988, 114, 1303-1323.	3.4	58
16	Field Data Analysis and Weather Scenario of a Downburst Event in Livorno, Italy, on 1 October 2012. Monthly Weather Review, 2017, 145, 3507-3527.	1.4	58
17	Proper orthogonal decomposition in wind engineering - Part 2: Theoretical aspects and some applications. Wind and Structures, an International Journal, 2007, 10, 177-208.	0.8	58
18	A web-based GIS platform for the safe management and risk assessment of complex structural and infrastructural systems exposed to wind. Advances in Engineering Software, 2018, 117, 29-45.	3.8	57

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19	On the formulation of ASCE7-95 gust effect factor. Journal of Wind Engineering and Industrial Aerodynamics, 1998, 77-78, 673-684.	3.9	56
20	Dynamic alongwind fatigue of slender vertical structures. Engineering Structures, 2001, 23, 1622-1633.	5.3	54
21	Wind-induced fatigue collapse of real slender structures. Engineering Structures, 2010, 32, 3888-3898.	5.3	52
22	3-D gust effect factor for slender vertical structures. Probabilistic Engineering Mechanics, 2002, 17, 143-155.	2.7	48
23	Modal transformation tools in structural dynamics and wind engineering. Wind and Structures, an International Journal, 2000, 3, 221-241.	0.8	48
24	Extreme wind speeds from long-term synthetic records. Journal of Wind Engineering and Industrial Aerodynamics, 2013, 115, 22-38.	3.9	47
25	Emerging issues and new frameworks for wind loading on structures in mixed climates. Wind and Structures, an International Journal, 2014, 19, 295-320.	0.8	47
26	Extreme wind speed distribution in a mixed wind climate. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 176, 239-253.	3.9	45
27	Equivalent static wind actions on vertical structures. Journal of Wind Engineering and Industrial Aerodynamics, 2004, 92, 335-357.	3.9	43
28	Double Modal Transformation and Wind Engineering Applications. Journal of Engineering Mechanics - ASCE, 2001, 127, 432-439.	2.9	41
29	Directional Wind-Induced Fatigue of Slender Vertical Structures. Journal of Structural Engineering, 2004, 130, 1032-1040.	3.4	39
30	Monitoring, cataloguing, and weather scenarios of thunderstorm outflows in the northern Mediterranean. Natural Hazards and Earth System Sciences, 2018, 18, 2309-2330.	3.6	37
31	Vertical profile characteristics of thunderstorm outflows. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 206, 104332.	3.9	35
32	A simple and efficient procedure for the numerical simulation of wind fields in complex terrain. Boundary-Layer Meteorology, 2007, 125, 417-439.	2.3	34
33	Directional decomposition and properties of thunderstorm outflows. Journal of Wind Engineering and Industrial Aerodynamics, 2019, 189, 71-90.	3.9	33
34	Dynamic crosswind fatigue of slender vertical structures. Wind and Structures, an International Journal, 2002, 5, 527-542.	0.8	33
35	Wind Response Spectrum. Journal of Engineering Mechanics - ASCE, 1989, 115, 2057-2073.	2.9	32
36	Wind climate analysis in complex terrains. Journal of Wind Engineering and Industrial Aerodynamics, 2013, 123, 349-362.	3.9	32

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37	Aspects of the dynamic wind-induced response of structures and codification. Wind and Structures, an International Journal, 2005, 8, 251-268.	0.8	31
38	Long-term simulation of the mean wind speed. Journal of Wind Engineering and Industrial Aerodynamics, 2011, 99, 1139-1150.	3.9	30
39	Detection, simulation, modelling and loading of thunderstorm outflows to design wind-safer and cost-efficient structures. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 200, 104142.	3.9	30
40	Hybrid simulation of thunderstorm outflows and wind-excited response of structures. Meccanica, 2017, 52, 3197-3220.	2.0	28
41	Characteristics of thunderstorm outflows in Beijing urban area. Journal of Wind Engineering and Industrial Aerodynamics, 2019, 195, 104011.	3.9	28
42	A novel approach to scaling experimentally produced downburst-like impinging jet outflows. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 196, 104025.	3.9	28
43	Wind-induced fatigue of structures under neutral and non-neutral atmospheric conditions. Journal of Wind Engineering and Industrial Aerodynamics, 2007, 95, 1364-1383.	3.9	27
44	Aeroelastic instability and wind-excited response of complex lighting poles and antenna masts. Engineering Structures, 2015, 85, 264-276.	5.3	26
45	Dynamic response of structures to thunderstorm outflows: Response spectrum technique vs time-domain analysis. Engineering Structures, 2018, 176, 188-207.	5.3	24
46	Time varying mean extraction for stationary and nonstationary winds. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 203, 104187.	3.9	24
47	Damping measurements of steel poles and tubular towers. Engineering Structures, 2001, 23, 1085-1095.	5.3	23
48	Gust buffeting of long span bridges: Double Modal Transformation and effective turbulence. Engineering Structures, 2007, 29, 1698-1707.	5.3	22
49	The International Association for Wind Engineering (IAWE): Progress and prospects. Journal of Wind Engineering and Industrial Aerodynamics, 2007, 95, 813-842.	3.9	22
50	Gust buffeting and turbulence uncertainties. Journal of Wind Engineering and Industrial Aerodynamics, 2002, 90, 441-459.	3.9	21
51	Double Proper Orthogonal Decomposition for Representing and Simulating Turbulence Fields. Journal of Engineering Mechanics - ASCE, 2005, 131, 1302-1312.	2.9	21
52	Closed form solution of the alongwind-induced fatigue damage to structures. Engineering Structures, 2009, 31, 2414-2425.	5.3	21
53	Wind Loading of Structures: Framework, Phenomena, Tools and Codification. Structures, 2017, 12, 265-285.	3.6	21
54	A generalized definition of gust factor. Journal of Wind Engineering and Industrial Aerodynamics, 1990, 36, 539-548.	3.9	20

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55	Stochastic analysis of the linear equivalent response of bridge piers with aseismic devices. Earthquake Engineering and Structural Dynamics, 1999, 28, 543-560.	4.4	20
56	Thunderstorm Downbursts and Wind Loading of Structures: Progress and Prospect. Frontiers in Built Environment, 2020, 6, .	2.3	20
57	Seismic response of multi-supported structures by proper orthogonal decomposition. Earthquake Engineering and Structural Dynamics, 2003, 32, 1639-1654.	4.4	19
58	Investigation of wind actions and effects on the Leaning Tower of Pisa. Wind and Structures, an International Journal, 1998, 1, 1-23.	0.8	19
59	Bimodal Alongwind Fatigue of Structures. Journal of Structural Engineering, 2006, 132, 899-908.	3.4	17
60	The role of analytical methods for evaluating the wind-induced response of structures. Journal of Wind Engineering and Industrial Aerodynamics, 2002, 90, 1453-1477.	3.9	16
61	An evolutionary power spectral density model of thunderstorm outflows consistent with real-scale time-history records. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 203, 104204.	3.9	16
62	A refined analysis and simulation of the wind speed macro-meteorological components. Journal of Wind Engineering and Industrial Aerodynamics, 2014, 132, 54-65.	3.9	15
63	Closed-Form Prediction of the Alongwind-Induced Fatigue of Structures. Journal of Structural Engineering, 2012, 138, 1149-1160.	3.4	13
64	Alongwind load effects on free-standing lattice towers. Journal of Wind Engineering and Industrial Aerodynamics, 2016, 155, 182-196.	3.9	13
65	Directional response of structures to thunderstorm outflows. Meccanica, 2019, 54, 1281-1306.	2.0	13
66	A general-purpose analytical model for reconstructing the thunderstorm outflows of travelling downbursts immersed in ABL flows. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 207, 104373.	3.9	13
67	General tendencies and classification of vertical structures under gust buffeting. Journal of Wind Engineering and Industrial Aerodynamics, 2002, 90, 1299-1319.	3.9	11
68	The Annual Rate of Independent Events for the analysis of the extreme wind speed. Journal of Wind Engineering and Industrial Aerodynamics, 2016, 156, 104-114.	3.9	11
69	Transient aeroelasticity of structures subjected to thunderstorm outflows. Engineering Structures, 2021, 245, 112801.	5.3	11
70	Maximum dynamic response of linear elastic SDOF systems based on an evolutionary spectral model for thunderstorm outflows. Journal of Wind Engineering and Industrial Aerodynamics, 2022, 224, 104978.	3.9	11
71	3-D response of buildings to wind action. Journal of Wind Engineering and Industrial Aerodynamics, 1986, 23, 379-393.	3.9	10
72	Actions monitoring as an alternative to structural rehabilitation: Case study of a river bridge. Structural Control and Health Monitoring, 2018, 25, e2250.	4.0	10

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73	Investigation of wind load on 1,000 m-high super-tall buildings based on HFFB tests. Structural Control and Health Monitoring, 2018, 25, e2068.	4.0	9
74	Machine learning based automated identification of thunderstorms from anemometric records using shapelet transform. Journal of Wind Engineering and Industrial Aerodynamics, 2022, 220, 104856.	3.9	9
75	Alongwind Response Estimation: Structural Classification. Journal of Structural Engineering, 1983, 109, 575-580.	3.4	8
76	Gust Buffeting of Slender Structures and Structural Elements: Simplified Formulas for Design Calculations and Code Provisions. Journal of Structural Engineering, 2018, 144, .	3.4	8
77	Wind tunnel testing of telecommunication lattice towers equipped with ancillaries. Engineering Structures, 2021, 241, 112526.	5.3	8
78	3-D wind-induced effects on bridges during balanced cantilever erection stages. Wind and Structures, an International Journal, 2003, 6, 1-22.	0.8	8
79	Downburst-like experimental impinging jet measurements at the WindEEE Dome. Scientific Data, 2022, 9, .	5.3	8
80	Effective wind actions on ideal and real structures. Journal of Wind Engineering and Industrial Aerodynamics, 2010, 98, 417-428.	3.9	6
81	Joint Modeling of the Parent Population and Extreme Value Distributions of the Mean Wind Velocity. Journal of Structural Engineering, 2016, 142, .	3.4	5
82	Aerodynamic coefficients and pressure distribution on two circular cylinders with free end immersed in experimentally produced downburst-like outflows. Advances in Structural Engineering, 2021, 24, 522-538.	2.4	5
83	Experimental investigation of the near-surface flow dynamics in downburst-like impinging jets. Environmental Fluid Mechanics, 2022, 22, 921-954.	1.6	5
84	Response to the Discussion on â€œThe annual rate of independent events for the analysis of extreme wind speed, by R. Ian Harrisâ€• Journal of Wind Engineering and Industrial Aerodynamics, 2017, 164, 179-181.	3.9	4
85	Education and dissemination in wind science and engineering. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 203, 104241.	3.9	4
86	Gust Buffeting and Aerodynamic Admittance of Structures with Arbitrary Mode Shapes. I: Enhanced Equivalent Spectrum Technique. Journal of Engineering Mechanics - ASCE, 2021, 147, .	2.9	4
87	Invited Lectures. Wind Engineers JAWE, 2001, 2001, 9-72.	0.1	4
88	Some critical issues on the distribution of the maximum value of the wind-excited response of structures. Probabilistic Engineering Mechanics, 2018, 54, 65-81.	2.7	3
89	Probabilistic modelling of maximum wind pressure on structures. Journal of Wind Engineering and Industrial Aerodynamics, 1998, 74-76, 1111-1121.	3.9	2
90	A Refined Study of Atmospheric Wind Properties in the Beijing Urban Area Based on a 325 m Meteorological Tower. Atmosphere, 2021, 12, 786.	2.3	2

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91	Gust Buffeting and Aerodynamic Admittance of Structures with Arbitrary Mode Shapes. II: A POD-Based Interpretation. Journal of Engineering Mechanics - ASCE, 2021, 147, 04020143.	2.9	2
92	Thunderstorm Monitoring, Modelling, Response and Loading of Structures. Wind Engineers JAWE, 2014, 39, 344-346.	0.1	1
93	Response to the further discussion on â€œThe annual rate of independent events for the analysis of extreme wind speed, by N. Cookâ€. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 174, 464-465.	3.9	1
94	Stochastic analysis of the linear equivalent response of bridge piers with aseismic devices. Earthquake Engineering and Structural Dynamics, 1999, 28, 543-560.	4.4	1
95	Dynamic Approach to the Wind Loading of Structures: Alongwind, Crosswind and Torsional Response. , 2007, , 137-166.		1
96	Steenbergen, R.D.J.M., Vrouwenvelder, A.C.W.M., Geurts, C.P.W., 2012. The use of Eurocode EN 1991-1-4 procedures 1 and 2 for building dynamics: A comparative study. Journal of Wind Engineering and Industrial Aerodynamics 107â€“108, 299â€“306. Journal of Wind Engineering and Industrial Aerodynamics, 2014, 129, 103-106.	3.9	0
97	Advancements in Wind Science and Engineering. Springer Tracts in Civil Engineering, 2019, , 841-924.	0.5	0
98	Probability distribution and statistical moments of the maximum wind velocity. Wind and Structures, an International Journal, 1998, 1, 287-302.	0.8	0
99	The annual rate of independent events â€“ A key interpretation for traditional extreme value distributions of wind velocity. Wind Energy, 0, , .	4.2	0