

Francesco Goia

List of Publications by Year in descending order

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71
papers

2,230
citations

257357

24
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233338

45
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all docs

74
docs citations

74
times ranked

1445
citing authors

#	ARTICLE	IF	CITATIONS
1	Search for the optimal window-to-wall ratio in office buildings in different European climates and the implications on total energy saving potential. <i>Solar Energy</i> , 2016, 132, 467-492.	2.9	185
2	Optimizing the configuration of a façade module for office buildings by means of integrated thermal and lighting simulations in a total energy perspective. <i>Applied Energy</i> , 2013, 108, 515-527.	5.1	129
3	Experimental analysis of the energy performance of a full-scale PCM glazing prototype. <i>Solar Energy</i> , 2014, 100, 217-233.	2.9	123
4	Improving thermal comfort conditions by means of PCM glazing systems. <i>Energy and Buildings</i> , 2013, 60, 442-452.	3.1	118
5	A numerical model to evaluate the thermal behaviour of PCM glazing system configurations. <i>Energy and Buildings</i> , 2012, 54, 141-153.	3.1	112
6	Thermal and electrical performance of an integrated PV-PCM system in double skin façades: A numerical study. <i>Solar Energy</i> , 2016, 136, 112-124.	2.9	106
7	Current trends and future challenges in the performance assessment of adaptive façade systems. <i>Energy and Buildings</i> , 2018, 179, 165-182.	3.1	106
8	Spectral and angular solar properties of a PCM-filled double glazing unit. <i>Energy and Buildings</i> , 2015, 87, 302-312.	3.1	100
9	Designing the design of experiments (DOE) – An investigation on the influence of different factorial designs on the characterization of complex systems. <i>Energy and Buildings</i> , 2021, 250, 111298.	3.1	96
10	A methodology to improve the performance of PV integrated shading devices using multi-objective optimization. <i>Applied Energy</i> , 2019, 247, 731-744.	5.1	78
11	Characterization of the optical properties of a PCM glazing system. <i>Energy Procedia</i> , 2012, 30, 428-437.	1.8	60
12	Numerical model and simulation of a solar thermal collector with slurry Phase Change Material (PCM) as the heat transfer fluid. <i>Solar Energy</i> , 2016, 134, 429-444.	2.9	51
13	Experimental assessment of the energy performance of an advanced responsive multifunctional façade module. <i>Energy and Buildings</i> , 2014, 68, 647-659.	3.1	49
14	Experimental Analysis of an Advanced Dynamic Glazing Prototype Integrating PCM and Thermotropic Layers. <i>Energy Procedia</i> , 2014, 48, 1272-1281.	1.8	47
15	Possibilities for characterization of a PCM window system using large scale measurements. <i>International Journal of Sustainable Built Environment</i> , 2013, 2, 56-64.	3.2	45
16	Modelling and experimental validation of an algorithm for simulation of hysteresis effects in phase change materials for building components. <i>Energy and Buildings</i> , 2018, 174, 54-67.	3.1	45
17	Thermo-physical behaviour and energy performance assessment of PCM glazing system configurations: A numerical analysis. <i>Frontiers of Architectural Research</i> , 2012, 1, 341-347.	1.3	44
18	Characterization and Energy Performance of a Slurry PCM-based Solar Thermal Collector: A Numerical Analysis. <i>Energy Procedia</i> , 2014, 48, 223-232.	1.8	42

#	ARTICLE	IF	CITATIONS
19	Phase Change Materials in Transparent Building Envelopes: A Strengths, Weakness, Opportunities and Threats (SWOT) Analysis. <i>Energies</i> , 2018, 11, 111.	1.6	39
20	Impact of double skin facade constructional features on heat transfer and fluid dynamic behaviour. <i>Building and Environment</i> , 2021, 196, 107796.	3.0	39
21	Modelling of double skin facades in whole-building energy simulation tools: A review of current practices and possibilities for future developments. <i>Building Simulation</i> , 2019, 12, 3-27.	3.0	32
22	Experimental analysis of the energy performance of an ACTIVE, RESponsive and Solar (ACTRESS) facade module. <i>Solar Energy</i> , 2016, 133, 226-248.	2.9	31
23	Physical-chemical properties evolution and thermal properties reliability of a paraffin wax under solar radiation exposure in a real-scale PCM window system. <i>Energy and Buildings</i> , 2016, 119, 41-50.	3.1	29
24	An inverse approach to identify selective angular properties of retro-reflective materials for urban heat island mitigation. <i>Solar Energy</i> , 2018, 176, 194-210.	2.9	27
25	Balancing competing parameters in search of optimal configurations for a fix louvre blade system with integrated PV. <i>Energy Procedia</i> , 2017, 122, 607-612.	1.8	25
26	Characteristics that matter in a climate facade: A sensitivity analysis with building energy simulation tools. <i>Energy and Buildings</i> , 2020, 229, 110467.	3.1	25
27	Ten questions concerning co-simulation for performance prediction of advanced building envelopes. <i>Building and Environment</i> , 2021, 191, 107570.	3.0	25
28	Modelling double skin facades (DSFs) in whole-building energy simulation tools: Validation and inter-software comparison of a mechanically ventilated single-story DSF. <i>Building and Environment</i> , 2021, 199, 107906.	3.0	25
29	Dynamic Thermal Performance of a PCM Window System: Characterization Using Large Scale Measurements. <i>Energy Procedia</i> , 2015, 78, 85-90.	1.8	24
30	Towards an Active, Responsive, and Solar Building Envelope. <i>Journal of Green Building</i> , 2010, 5, 121-136.	0.4	21
31	Responsive glazing systems: Characterisation methods and winter performance. <i>Solar Energy</i> , 2017, 155, 372-387.	2.9	20
32	Empirical validation and local sensitivity analysis of a lumped-parameter thermal model of an outdoor test cell. <i>Building and Environment</i> , 2018, 130, 151-161.	3.0	20
33	Exploiting selective angular properties of retro-reflective coatings to mitigate solar irradiation within the urban canyon. <i>Solar Energy</i> , 2019, 189, 74-85.	2.9	20
34	Field investigations of a smiley-face polling station for recording occupant satisfaction with indoor climate. <i>Building and Environment</i> , 2020, 185, 107266.	3.0	19
35	Analysis of a non-calorimetric method for assessment of in-situ thermal transmittance and solar factor of glazed systems. <i>Solar Energy</i> , 2018, 166, 458-471.	2.9	18
36	Responsive glazing systems: Characterisation methods, summer performance and implications on thermal comfort. <i>Solar Energy</i> , 2017, 158, 819-836.	2.9	17

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37	Sinusoidal response measurement procedure for the thermal performance assessment of PCM by means of dynamic heat flow meter apparatus. <i>Energy and Buildings</i> , 2019, 183, 297-310.	3.1	17
38	Impact of Opaque Building Envelope Configuration on the Heating and Cooling Energy Need of a Single Family House in Cold Climates. <i>Energy Procedia</i> , 2015, 78, 2626-2631.	1.8	16
39	The ZEB Test Cell Laboratory. A facility for characterization of building envelope systems under real outdoor conditions. <i>Energy Procedia</i> , 2017, 132, 531-536.	1.8	16
40	Thermal and Optical Properties of a Thermotropic Glass Pane: Laboratory and In-Field Characterization. <i>Energy Procedia</i> , 2015, 78, 116-121.	1.8	14
41	The Impact of an Ideal Dynamic Building Envelope on the Energy Performance of Low Energy Office Buildings. <i>Energy Procedia</i> , 2014, 58, 185-192.	1.8	12
42	Development and validation of a Monte Carlo-based numerical model for solar analyses in urban canyon configurations. <i>Building and Environment</i> , 2020, 170, 106638.	3.0	12
43	Laboratory testbed and methods for flexible characterization of thermal and fluid dynamic behaviour of double skin facades. <i>Building and Environment</i> , 2022, 210, 108700.	3.0	12
44	Energy Performance Assessment of an Advanced Integrated Façade through Experimental Data Analysis. <i>Energy Procedia</i> , 2014, 48, 1262-1271.	1.8	11
45	Design and in-field testing of a multi-level system for continuous subjective occupant feedback on indoor climate. <i>Building and Environment</i> , 2021, 189, 107535.	3.0	11
46	Phase Change Materials in Glazing: Implications on Light Distribution and Visual Comfort. Preliminary Results. <i>Energy Procedia</i> , 2017, 111, 357-366.	1.8	10
47	Effects of retro-reflective and angular-selective retro-reflective materials on solar energy in urban canyons. <i>Solar Energy</i> , 2020, 209, 662-673.	2.9	10
48	Tracer gas techniques for airflow characterization in double skin facades. <i>Building and Environment</i> , 2022, 212, 108803.	3.0	10
49	A Comparative Analysis of the Visual Comfort Performance between a PCM Glazing and a Conventional Selective Double Glazed Unit. <i>Sustainability</i> , 2018, 10, 3579.	1.6	9
50	Co-simulation and validation of the performance of a highly flexible parametric model of an external shading system. <i>Building and Environment</i> , 2020, 182, 107111.	3.0	8
51	CFD Study of Diffuse Ceiling Ventilation through Perforated Ceiling Panels. <i>Energies</i> , 2020, 13, 1995.	1.6	7
52	Exploring the impact of problem formulation in numerical optimization: A case study of the design of PV integrated shading systems. <i>Building and Environment</i> , 2021, 188, 107422.	3.0	7
53	Control of heat transfer in single-story mechanically ventilated double skin facades. <i>Energy and Buildings</i> , 2022, 271, 112304.	3.1	7
54	Advanced transparent facades: market available products and associated challenges in building performance simulation. <i>Energy Procedia</i> , 2017, 132, 496-501.	1.8	6

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55	Characterization of a naturally ventilated double-skin faade through the design of experiments (DOE) methodology in a controlled environment. Energy and Buildings, 2022, 263, 112024.	3.1	6
56	Enabling holistic design for high energy efficient office buildings through the use of subjective occupant feedback. Sustainable Cities and Society, 2021, 69, 102867.	5.1	5
57	Daylighting availability in a living laboratory single family house and implication on electric lighting energy demand. Energy Procedia, 2017, 122, 601-606.	1.8	4
58	Simplified metrics for advanced window systems. Effects on the estimation of energy use for space heating and cooling. Energy Procedia, 2017, 122, 613-618.	1.8	3
59	Laboratory Approaches to Studying Occupants. , 2018, , 169-212.		3
60	Embedding intelligence to control adaptive building envelopes. , 2022, , 155-179.		3
61	Energy performance assessment of a semi-integrated PV system in a zero emission building through periodic linear regression method. Energy Procedia, 2017, 132, 586-591.	1.8	2
62	Investigating the performance of a hybrid PV integrated shading device using multi-objective optimization. Journal of Physics: Conference Series, 2019, 1343, 012086.	0.3	2
63	A theoretical framework for classifying occupant-centric data streams on indoor climate using a physiological and cognitive process hierarchy. Energy and Buildings, 2021, 241, 110935.	3.1	2
64	A test bed for thermal fluid dynamic analysis of double skin facade systems. IOP Conference Series: Materials Science and Engineering, 2019, 609, 032006.	0.3	1
65	Simulation and control of shading systems for glazed facades. IOP Conference Series: Earth and Environmental Science, 2019, 352, 012069.	0.2	1
66	A simulation study on the performance of double skin faade through experimental design methods and analysis of variance. IOP Conference Series: Materials Science and Engineering, 2019, 609, 062003.	0.3	1
67	Relation between daylight availability and electric lighting in a single-family house. IOP Conference Series: Earth and Environmental Science, 2019, 352, 012034.	0.2	1
68	Information match between continuous occupant data streams and one-time manual surveys on indoor climate. Building and Environment, 2021, 204, 108087.	3.0	1
69	Energy Performance Assessment of Advanced Integrated Faades by Means of Synthetic Metrics. Lecture Notes in Electrical Engineering, 2014, , 21-28.	0.3	1
70	Inverse design for advanced building envelope materials, systems and operation. , 2022, , 377-402.		1
71	Calibration of DSF model for real-time control. Journal of Physics: Conference Series, 2021, 2069, 012027.	0.3	0