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List of Publications by Year
in descending order

99 papers	1,420 citations	331670 21 h-index	501196 28 g-index
103 all docs	103 docs citations	103 times ranked	805 citing authors

#	ARTICLE	IF	CITATIONS
1	A dynamic approach for the impact of a toxic gas dispersion hazard considering human behaviour and dispersion modelling. Journal of Hazardous Materials, 2016, 318, 758-771.	12.4	60
2	Advances in modelling in CFD simulations of turbulent gaseous pool fires. Combustion and Flame, 2017, 181, 22-38.	5.2	59
3	Experimental study of the effectiveness of a water system in blocking fire-induced smoke and heat in reduced-scale tunnel tests. Tunnelling and Underground Space Technology, 2016, 56, 34-44.	6.2	41
4	Influence of the particle injection rate, droplet size distribution and volume flux angular distribution on the results and computational time of water spray CFD simulations. Fire Safety Journal, 2017, 91, 586-595.	3.1	40
5	Experimental study of the effectiveness of air curtains of variable width and injection angle to block fire-induced smoke in a tunnel configuration. International Journal of Thermal Sciences, 2018, 134, 13-26.	4.9	40
6	Experimental study of natural roof ventilation in full-scale enclosure fire tests in a small compartment. Fire Safety Journal, 2007, 42, 523-535.	3.1	32
7	Special Issue on Fire Safety of High-Rise Buildings. Fire Technology, 2017, 53, 1-3.	3.0	32
8	Towards predictive simulations of gaseous pool fires. Proceedings of the Combustion Institute, 2019, 37, 3927-3934.	3.9	32
9	Large Eddy Simulations of the Flow in the Near-Field Region of a Turbulent Buoyant Helium Plume. Flow, Turbulence and Combustion, 2013, 90, 511-543.	2.6	29
10	Simulation of Hydrogen Auto-Ignition in a Turbulent Co-flow of Heated Air with LES and CMC Approach. Flow, Turbulence and Combustion, 2011, 86, 689-710.	2.6	27
11	Simulations of Smoke Flow Fields in a Wind Tunnel Under the Effect of an Air Curtain for Smoke Confinement. Fire Technology, 2016, 52, 2007-2026.	3.0	27
12	Study of the importance of non-uniform mass density in numerical simulations of fire spread over MDF panels in a corner configuration. Combustion and Flame, 2019, 200, 303-315.	5.2	27
13	Multiscale modeling of turbulent combustion and NO<i>_x</i> emission in steam crackers. AIChE Journal, 2007, 53, 2384-2398.	3.6	26
14	An enthalpy-based pyrolysis model for charring and non-charring materials in case of fire. Combustion and Flame, 2010, 157, 715-734.	5.2	26
15	Study of FDS simulations of buoyant fire-induced smoke movement in a high-rise building stairwell. Fire Safety Journal, 2017, 91, 276-283.	3.1	25
16	Fireground location understanding by semantic linking of visual objects and building information models. Fire Safety Journal, 2017, 91, 1026-1034.	3.1	24
17	Development of a Risk Assessment Method for Life Safety in Case of Fire in Rail Tunnels. Fire Technology, 2016, 52, 1465-1479.	3.0	23
18	Large Eddy Simulations of CH4 Fire Plumes. Flow, Turbulence and Combustion, 2017, 99, 239-278.	2.6	23

#	Article	IF	Citations
19	Title is missing!. Flow, Turbulence and Combustion, 2001, 66, 133-157.	2.6	22
20	Flow and Mixing Fields for Transported Scalar PDF Simulations of a Piloted Jet Diffusion Flame (â€˜Delft) Tj ETQq0 0 0 rgBT /Overlock 10	2.6	22
21	Experimental study of corner firesâ€"Part I: Inert panel tests. Combustion and Flame, 2018, 189, 472-490.	5.2	22
22	Analysis of experimental data on the effect of fire source elevation on fire and smoke dynamics and the critical velocity in a tunnel with longitudinal ventilation. Fire Safety Journal, 2020, 114, 103002.	3.1	22
23	Experimental Study on the Use of Positive Pressure Ventilation for Fire Service Interventions in Buildings with Staircases. Fire Technology, 2014, 50, 1517-1534.	3.0	21
24	Application of FDS to Under-Ventilated Enclosure Fires with External Flaming. Fire Technology, 2016, 52, 2117-2142.	3.0	21
25	Flame Spread Monitoring and Estimation of the Heat Release Rate from a Cable Tray Fire Using Video Fire Analysis (VFA). Fire Technology, 2016, 52, 611-621.	3.0	20
26	Application of FDS to Adhered Spill Plumes in Atria. Fire Technology, 2009, 45, 179-188.	3.0	19
27	LES-CMC Simulations of Different Auto-ignition Regimes of Hydrogen in a Hot Turbulent Air Co-flow. Flow, Turbulence and Combustion, 2013, 90, 583-604.	2.6	18
28	Development of an Integrated Risk Assessment Method to Quantify the Life Safety Risk in Buildings in Case of Fire. Fire Technology, 2019, 55, 1211-1242.	3.0	18
29	On the use of dynamic turbulence modelling in fire applications. Combustion and Flame, 2020, 216, 9-23.	5.2	18
30	The combined effect of a water mist system and longitudinal ventilation on the fire and smoke dynamics in a tunnel. Fire Safety Journal, 2021, 122, 103351.	3.1	18
31	Predictive Capabilities of an Improved Cubic kâ€"Îµ Model for Inert Steady Flows. Flow, Turbulence and Combustion, 2002, 68, 335-358.	2.6	17
32	Transition modelling with the k-Î© turbulence model and an intermittency transport equation. Journal of Thermal Science, 2004, 13, 220-225.	1.9	17
33	Analysis of auto-ignition of heated hydrogenâ€"air mixtures with different detailed reaction mechanisms. Combustion Theory and Modelling, 2011, 15, 409-436.	1.9	17
34	Application of FDS and FireFOAM in Large Eddy Simulations of a Turbulent Buoyant Helium Plume. Combustion Science and Technology, 2012, 184, 1108-1120.	2.3	17
35	Development of a numerical model for liquid pool evaporation. Fire Safety Journal, 2018, 102, 48-58.	3.1	17
36	Study of pyrolysis and upward flame spread on charring materialsâ€"Part I: Experimental study. Fire and Materials, 2011, 35, 209-229.	2.0	16

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37	Experimental study of corner firesâ€"Part II: Flame spread over MDF panels. Combustion and Flame, 2018, 189, 491-505.	5.2	16
38	On the Use of Real-Time Video to Forecast Fire Growth in Enclosures. Fire Technology, 2014, 50, 1021.	3.0	15
39	Global analysis of multi-compartment full-scale fire tests (â€˜Rabot2012â€™). Fire Safety Journal, 2015, 76, 9-18.	3.1	15
40	Hybrid RANS/LES modelling with an approximate renormalization group. II: Applications. Journal of Turbulence, 2005, 6, N14.	1.4	13
41	Study of vertical upward flame spread on charring materials-Part II: Numerical simulations. Fire and Materials, 2011, 35, 261-273.	2.0	13
42	Assessment of Numerical Simulation Capabilities of the Fire Dynamics Simulator (FDS 6) for Planar Air Curtain Flows. Fire Technology, 2018, 54, 583-612.	3.0	13
43	Interpretation of flow fields induced by water spray systems in reduced-scale tunnel fire experiments by means of CFD simulations. Tunnelling and Underground Space Technology, 2018, 81, 94-102.	6.2	13
44	Extension and evaluation of the integral model for transient pyrolysis of charring materials. Fire and Materials, 2005, 29, 195-212.	2.0	12
45	Fireâ€induced reradiation underneath photovoltaic arrays on flat roofs. Fire and Materials, 2018, 42, 316-323.	2.0	12
46	Generalised Langevin Model in Correspondence with a Chosen Standard Scalar-Flux Second-Moment Closure. Flow, Turbulence and Combustion, 2010, 85, 363-382.	2.6	11
47	Assessement of FDS 6 Simulation Results for a Large-Scale Ethanol Pool Fire. Combustion Science and Technology, 2016, 188, 571-580.	2.3	11
48	Assessment of the Burning Rate of Liquid Fuels in Confined and Mechanically-Ventilated Compartments using a Well-Stirred Reactor Approach. Fire Technology, 2016, 52, 469-488.	3.0	11
49	LES Study of a Turbulent Spray Jet: Mesh Sensitivity, Mesh-Parcels Interaction and Injection Methodology. Flow, Turbulence and Combustion, 2019, 103, 537-564.	2.6	11
50	Numerical simulations of a fullâ€scale cable tray fire using smallâ€scale test data. Fire and Materials, 2019, 43, 486-496.	2.0	11
51	CFD study of fire-induced pressure variation in a mechanically-ventilated air-tight compartment. Fire Safety Journal, 2020, 115, 103012.	3.1	11
52	Silhouette-based multi-sensor smoke detection. Machine Vision and Applications, 2012, 23, 1243-1262.	2.7	10
53	The Use of Positive Pressure Ventilation Fans During Firefighting Operations in Underground Stations: An Experimental Study. Fire Technology, 2018, 54, 625-647.	3.0	10
54	Large eddy simulations of flame extinction in a turbulent line burner. Fire Safety Journal, 2019, 105, 216-226.	3.1	10

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55	Prediction of smoke filling in large volumes by means of data assimilationâ€“based numerical simulations. Journal of Fire Sciences, 2012, 30, 300-317.	2.0	9
56	LES-CMS simulations of a turbulent lifted hydrogen flame in vitiated co-flow. Thermal Science, 2013, 17, 763-772.	1.1	9
57	IAFSS Working Group on Measurement and Computation of Fire Phenomena. Fire Technology, 2016, 52, 607-610.	3.0	9
58	Flame behavior from opening of a compartment with ambient back-roof wind passing through the roof: Experiments and similarity analysis. Combustion and Flame, 2020, 220, 312-327.	5.2	9
59	Experimental and numerical study of furniture fires in an ISO-room for use in a fire forecasting framework. Journal of Fire Sciences, 2013, 31, 449-468.	2.0	8
60	Blind Simulation of Periodic Pressure and Burning Rate Instabilities in the Event of a Pool Fire in a Confined and Mechanically Ventilated Compartment. Combustion Science and Technology, 2016, 188, 504-515.	2.3	8
61	Computational fluid dynamics simulations of the impact of a water spray on a fire-induced smoke layer inside a hood. Journal of Fire Sciences, 2018, 36, 380-405.	2.0	8
62	Influence of fire heat release rate (HRR) evolutions on fire-induced pressure variations in air-tight compartments. Fire Safety Journal, 2021, 126, 103450.	3.1	8
63	Experimental study on the effect of mechanical ventilation conditions and fire dynamics on the pressure evolution in an air-tight compartment. Fire Safety Journal, 2021, 125, 103426.	3.1	8
64	Computer Modeling for Fire and Smoke Dynamics in Enclosures: A Help or a Burden?. Fire Safety Science, 2014, 11, 46-65.	0.3	8
65	Evaluation of OpenFOAMâ€™s discretization schemes used for the convective terms in the context of fire simulations. Computers and Fluids, 2022, 232, 105208.	2.5	8
66	Hybrid RANS/LES modelling with an approximate renormalization group. I: Model development. Journal of Turbulence, 2005, 6, N13.	1.4	7
67	Impact of Turbulent Flow and Mean Mixture Fraction Results on Mixing Model Behavior in Transported Scalar PDF Simulations of Turbulent Non-premixed Bluff Body Flames. Flow, Turbulence and Combustion, 2007, 79, 41-53.	2.6	7
68	Multi-modal time-of-flight based fire detection. Multimedia Tools and Applications, 2014, 69, 313-338.	3.9	7
69	CFD Simulations of Pool Fires in a Confined and Ventilated Enclosure Using the Peatrossâ€“Beyler Correlation to Calculate the Mass Loss Rate. Fire Technology, 2017, 53, 1669-1703.	3.0	7
70	Large eddy simulations of the UMD line burner with the conditional moment closure method. Fire Safety Journal, 2020, 116, 103206.	3.1	7
71	Experimental and numerical study of pool fire dynamics in an air-tight compartment focusing on pressure variation. Fire Safety Journal, 2021, 120, 103128.	3.1	7
72	Application of a RG hybrid RANS/LES model to swirling confined turbulent jets. Journal of Turbulence, 2006, 7, N56.	1.4	6

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73	Application of a simple enthalpyâ€based pyrolysis model in numerical simulations of pyrolysis of charring materials. Fire and Materials, 2010, 34, 39-54.	2.0	6
74	Large eddy simulations of differential molecular diffusion in non-reacting turbulent jets of H2/CO2 mixing with air. Physics of Fluids, 2014, 26, .	4.0	6
75	Large Eddy Simulations of the Ceiling Jet Induced by the Impingement of a Turbulent Air Plume. Fire Technology, 2016, 52, 2093-2115.	3.0	6
76	Analysis of FDS 6 Simulation Results for Planar Air Curtain Related Flows from Straight Rectangular Ducts. Fire Technology, 2018, 54, 419-435.	3.0	6
77	Assessment of heating and evaporation modelling based on single suspended water droplet experiments. Fire Safety Journal, 2019, 106, 124-135.	3.1	6
78	Direct investigation of the K-transport equation for a complex turbulent flow. Journal of Turbulence, 2003, 4, .	1.4	5
79	Call for participation in the first workshop organized by the IAFSS Working Group on Measurement and Computation of Fire Phenomena. Fire Safety Journal, 2016, 82, 146-147.	3.1	5
80	Grid insensitive modelling of convective heat transfer fluxes in CFD simulations of medium-scale pool fires. Fire Safety Journal, 2021, 120, 103104.	3.1	5
81	A stable pressureâ€correction scheme for variable density flows involving nonâ€premixed combustion. International Journal for Numerical Methods in Fluids, 2008, 56, 1465-1471.	1.6	4
82	Call for Participation in the Second Workshop Organized by the IAFSS Working Group on Measurement and Computation of Fire Phenomena. Fire Technology, 2019, 55, 1911-1917.	3.0	4
83	Energy balance equation for pressure in air-tight compartment fires: detailed discussion and experimental validation. Fire Safety Journal, 2021, 122, 103362.	3.1	4
84	Numerical analysis of a water mist spray: The importance of various numerical and physical parameters, including the drag force. Fire Safety Journal, 2022, 127, 103515.	3.1	4
85	Wind tunnel study of ammonia transfer from a manure pit fitted with a dairy cattle slatted floor. Environmental Technology (United Kingdom), 2016, 37, 202-215.	2.2	3
86	Influence of convective heat transfer modelling in CFD simulations of upward flame spread. Fire Safety Journal, 2021, 122, 103347.	3.1	3
87	On the importance of the heat release rate in numerical simulations of fires in mechanically ventilated airâ€tight enclosures. Proceedings of the Combustion Institute, 2022, , .	3.9	3
88	Development of a novel two-zone model for the heating of an evaporating liquid droplet. Fire Safety Journal, 2021, 120, 103019.	3.1	2
89	Application of a k-Îµ model to heat transfer in impinging flows. Journal of Thermal Science, 2004, 13, 62-66.	1.9	1
90	Temperature effects on the mass flow rate in the SBI and similar heat-release rate test equipment. Fire and Materials, 2007, 31, 53-66.	2.0	1

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91	Assessment of an Evaporation Model in CFD Simulations of a Free Liquid Pool Fire Using the Mass Transfer Number Approach. Flow, Turbulence and Combustion, 2018, 101, 1059-1072.	2.6	1
92	Call for participation in the second workshop organized by the IAFSS Working Group on Measurement and Computation of Fire Phenomena. Fire Safety Journal, 2019, 105, 92-94.	3.1	1
93	Large Eddy Simulations of a Set of Experiments with Water Spray-Hot Air Jet Plume Interactions. Flow, Turbulence and Combustion, 2019, 103, 203-223.	2.6	1
94	Computational Analysis of Choices in the Design of Smoke Extraction Duct Systems (SEDS) for Compartment Fires. Fire Technology, 2022, 58, 2189-2212.	3.0	1
95	Analysis of adaptive mesh refinement in a turbulent buoyant helium plume. International Journal for Numerical Methods in Fluids, 0, , .	1.6	1
96	VLES modelling with the Renormalization Group. Journal of Thermal Science, 2003, 12, 328-331.	1.9	0
97	Numerical investigation of the error on flow measurements due to exhaust gas heating and cooling in the SBI-configuration. Fire and Materials, 2007, 31, 13-26.	2.0	0
98	A Stable Pressure-Correction Scheme for Time-Accurate Non-Premixed Combustion Simulations. Flow, Turbulence and Combustion, 2009, 82, 249-269.	2.6	0
99	Numerical study on the importance of the turbulent inlet boundary condition and differential diffusion in a turbulent H₂/N₂/air jet diffusion flame. Combustion Science and Technology, 2019, 191, 109-125.	2.3	0