Ian Burgess

List of Publications by Year
in descending order

125 papers	3,325 citations	117571 34 h-index	175177 52 g-index
126 all docs	126 docs citations	126 times ranked	1073 citing authors

#	Article	IF	Citations
1	Fire performance of axially ductile connections in composite construction. Fire Safety Journal, 2021, 121, 103311.	1.4	7
2	A numerical study on the structural performance of a ductile connection under fire conditions. Ce/Papers, 2021, 4, 1196-1202.	0.1	3
3	Ductile connection to improve the fire performance of bare-steel and composite frames. Journal of Structural Fire Engineering, 2021, ahead-of-print, .	0.4	1
4	The effect of high-temperature creep on buckling behaviour of aluminium grade EN6082AW T6 columns. Fire Safety Journal, 2020, 112, 102971.	1.4	4
5	An integrated yield-line approach to tensile and compressive membrane actions in thin lightly-reinforced concrete slabs. Engineering Structures, 2020, 208, 110321.	2.6	9
6	Component-based modelling of a novel ductile steel connection. Engineering Structures, 2020, 208, 110320.	2.6	6
7	Performance of a novel ductile connection in steel-framed structures under fire conditions. Journal of Constructional Steel Research, 2020, 169, 106034.	1.7	9
8	Investigation of a steel connection to accommodate ductility demand of beams in fire. Journal of Constructional Steel Research, 2019, 157, 182-197.	1.7	15
9	Effects of Recycled Steel and Polymer Fibres on Explosive Fire Spalling of Concrete. Fire Technology, 2019, 55, 1495-1516.	1.5	24
10	Behaviour of Steel Grade S275JR Columns under the Influence of High-Temperature Creep. Metals, 2018, 8, 874.	1.0	4
11	Tensile Membrane Action of Lightly-reinforced Rectangular Composite Slabs in Fire. Structures, 2018, 16, 176-197.	1.7	17
12	Development of a rheological model for creep strain evolution in steel and aluminium at high temperature. Fire and Materials, 2018, 42, 879-888.	0.9	4
13	The behaviour and effects of beam-end buckling in fire using a component-based method. Engineering Structures, 2017, 139, 15-30.	2.6	5
14	Yield-line plasticity and tensile membrane action in lightly-reinforced rectangular concrete slabs. Engineering Structures, 2017, 138, 195-214.	2.6	37
15	Development of a high temperature material model for grade s275jr steel. Journal of Constructional Steel Research, 2017, 137, 161-168.	1.7	8
16	Experimental Analysis of the Behaviour of Aluminium Alloy EN 6082AW T6 at High Temperature. Metals, 2017, 7, 126.	1.0	25
17	Fire Protection of Concrete Tunnel Linings with Waste Tyre Fibres. Procedia Engineering, 2017, 210, 472-478.	1.2	15
18	THE MECHANICS OF TENSILE MEMBRANE ACTION IN COMPOSITE SLABS AT HIGH TEMPERATURES. Applications of Structural Fire Engineering, 2016, , .	0.3	0

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19	PARAMETRIC STUDIES ON THE COMPONENT-BASED APPROACH TO MODELLING BEAM BOTTOM FLANGE BUCKLING AT ELEVATED TEMPERATURES. Acta Polytechnica, 2016, 56, 132.	0.3	0
20	DEVELOPMENNT OF A COMPOSITE SLAB BREAK-ELEMENT FOR THE ANALYSIS OF COMPOSITE FRAMES IN FIRE. Applications of Structural Fire Engineering, 2016, , .	0.3	0
21	An analytical and numerical prediction for ductility demand on steel beam-to-column connections in fire. Engineering Structures, 2016, 115, 55-66.	2.6	3
22	A unified rheological model for modelling steel behaviour in fire conditions. Journal of Constructional Steel Research, 2016, 127, 221-230.	1.7	10
23	Creep-free fire analysis of steel structures with Eurocode 3 material model. Journal of Structural Fire Engineering, 2016, 7, 234-248.	0.4	10
24	Component-based model of buckling panels of steel beams at elevated temperatures. Journal of Constructional Steel Research, 2016, 118, 91-104.	1.7	8
25	Development of a creepâ€free stressâ€strain law for fire analysis of steel structures. Fire and Materials, 2016, 40, 896-912.	0.9	7
26	Tensile Behaviour of Galvanised Grade 8.8 Bolt Assemblies in Fire. Journal of Structural Fire Engineering, 2015, 6, 197-212.	0.4	11
27	Development of a General Component-Based Connection Element for Structural Fire Engineering Analysis. Journal of Structural Fire Engineering, 2015, 6, 247-254.	0.4	9
28	Progressive failure modelling and ductility demand of steel beam-to-column connections in fire. Engineering Structures, 2015, 89, 66-78.	2.6	35
29	An analytical approach to modelling shear panels in steel beams at elevated temperatures. Engineering Structures, 2015, 85, 73-82.	2.6	7
30	Behaviour of composite slab-beam systems at elevated temperatures: Experimental and numerical investigation. Engineering Structures, 2015, 82, 199-213.	2.6	26
31	A Note From the Guest Editor. Journal of Structural Fire Engineering, 2013, 4, i-ii.	0.4	0
32	Experiments on reverse-channel connections at elevated temperatures. Engineering Structures, 2013, 49, 973-982.	2.6	19
33	The Influence of Tensile Membrane Action on Fire-exposed Composite Concrete Floor-steel Beams with Web-openings. Procedia Engineering, 2013, 62, 710-716.	1.2	5
34	Principles of a component-based connection element for the analysis of steel frames in fire. Engineering Structures, 2013, 49, 1059-1067.	2.6	18
35	Deformation-reversal in component-based connection elements for analysis of steel frames in fire. Journal of Constructional Steel Research, 2013, 86, 54-65.	1.7	5
36	High-temperature tests on joints to steel and partially-encased H-section columns. Journal of Constructional Steel Research, 2013, 80, 243-251.	1.7	10

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37	Behaviour of Frame Columns in Localised Fires. Journal of Structural Fire Engineering, 2013, 4, 175-186.	0.4	3
38	A Component-Based Model for Fin-Plate Connections in Fire. Journal of Structural Fire Engineering, 2013, 4, 113-122.	0.4	7
39	Tensile Membrane Action of Thin Slabs Exposed to Thermal Gradients. Journal of Engineering Mechanics - ASCE, 2013, 139, 1497-1507.	1.6	9
40	A Structural Fire Engineering Prediction for the VeselÃ-Fire Tests, 2011. Journal of Structural Fire Engineering, 2013, 4, 1-8.	0.4	2
41	The Role of Connections in the Response of Steel Frames to Fire. Structural Engineering International: Journal of the International Association for Bridge and Structural Engineering (IABSE), 2012, 22, 449-461.	0.5	26
42	The effect of reinforcement ratios on composite slabs in fire. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2012, 165, 385-398.	0.4	2
43	Briefing: Role of connections in preventing steel frame collapse in fire. Proceedings of the Institution of Civil Engineers: Engineering and Computational Mechanics, 2012, 165, 219-221.	0.4	0
44	Effect of transient strain on strength of concrete and CFT columns in fire â€“ Part 1: Elevated-temperature analysis on a Shanley-like column model. Engineering Structures, 2012, 44, 379-388.	2.6	6
45	Effect of transient strain on strength of concrete and CFT columns in fire â€“ Part 2: Simplified and numerical modelling. Engineering Structures, 2012, 44, 389-399.	2.6	8
46	Progressive collapse analysis of steel structures under fire conditions. Engineering Structures, 2012, 34, 400-413.	2.6	130
47	The collapse behaviour of braced steel frames exposed to fire. Journal of Constructional Steel Research, 2012, 72, 130-142.	1.7	78
48	Collapse Mechanisms of Composite Slab Panels in Fire. Journal of Structural Fire Engineering, 2011, 2, 205-216.	0.4	4
49	The mechanics of inelastic buckling using a Shanley-like model. Proceedings of the Institution of Civil Engineers: Engineering and Computational Mechanics, 2011, 164, 103-119.	0.4	3
50	On the buckling of axially restrained steel columns in fire. Engineering Structures, 2011, 33, 2832-2838.	2.6	42
51	Experimental and Numerical Investigations of the Behavior of Flush End Plate Connections at Elevated Temperatures. Journal of Structural Engineering, 2011, 137, 80-87.	1.7	49
52	Development and Validation of 3D Composite Structural Elements at Elevated Temperatures. Journal of Structural Engineering, 2010, 136, 275-284.	1.7	16
53	Three-Dimensional Analysis of Reinforced Concrete Beam-Column Structures in Fire. Journal of Structural Engineering, 2009, 135, 1201-1212.	1.7	49
54	Tying capacity of web cleat connections in fire, Part 1: Test and finite element simulation. Engineering Structures, 2009, 31, 651-663.	2.6	58

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55	Tying capacity of web cleat connections in fire, Part 2: Development of component-based model. Engineering Structures, 2009, 31, 697-708.	2.6	47
56	Experimental investigation of the behaviour of fin plate connections in fire. Journal of Constructional Steel Research, 2009, 65, 723-736.	1.7	109
57	Development of a yield-line model for endplate connections in fire. Journal of Constructional Steel Research, 2009, 65, 1279-1289.	1.7	27
58	Component modelling of flexible end-plate connections in fire. International Journal of Steel Structures, 2009, 9, 1-15.	0.6	32
59	Behaviour of composite cellular steel â€" Concrete beams at elevated temperatures. International Journal of Steel Structures, 2009, 9, 29-37.	0.6	13
60	Numerical and analytical investigations of steel beam-to-column joints at elevated temperatures. Journal of Constructional Steel Research, 2009, 65, 1043-1054.	1.7	17
61	A message from the publisher. Current Opinion in Urology, 2009, 19, ix.	0.9	0
62	Performance in fire of long-span composite truss systems. Engineering Structures, 2008, 30, 683-694.	2.6	3
63	Performance of beam-to-column joints in fireâ€"A review. Fire Safety Journal, 2008, 43, 50-62.	1.4	60
64	Numerical simulation of bolted steel connections in fire using explicit dynamic analysis. Journal of Constructional Steel Research, 2008, 64, 515-525.	1.7	91
65	Nonlinear analysis of orthotropic composite slabs in fire. Engineering Structures, 2008, 30, 67-80.	2.6	13
66	Behavior of Steel Beam-to-Column Joints at Elevated Temperature: Experimental Investigation. Journal of Structural Engineering, 2008, 134, 713-726.	1.7	23
67	Slab panel vertical support and tensile membrane action in fire. Steel and Composite Structures, 2008, 8, 217-230.	1.3	2
68	Thermal and structural behaviour of a full-scale composite building subject to a severe compartment fire. Fire Safety Journal, 2007, 42, 183-199.	1.4	55
69	Finite element modelling of steel fin plate connections in fire. Fire Safety Journal, 2007, 42, 408-415.	1.4	81
70	The development of a component-based connection element for endplate connections in fire. Fire Safety Journal, 2007, 42, 498-506.	1.4	37
71	Behaviour of lightweight composite trusses in fire - A case study. Steel and Composite Structures, 2007, 7, 105-118.	1.3	3
72	Momentâ€"rotationâ€"temperature curves for semi-rigid joints. Journal of Constructional Steel Research, 2005, 61, 281-303.	1.7	66

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73	Spring-stiffness model for flexible end-plate bare-steel joints in fire. Journal of Constructional Steel Research, 2005, 61, 1672-1691.	1.7	31
74	Prediction of the degradation of connection characteristics at elevated temperature. Journal of Constructional Steel Research, 2004, 60, 771-781.	1.7	21
75	Experimental behaviour of concrete floor slabs at large displacements. Engineering Structures, 2004, 26, 1231-1247.	2.6	79
76	Experimental and analytical studies of steel joint components at elevated temperatures. Fire and Materials, 2004, 28, 83-94.	0.9	19
77	Comparison of BRE simple design method for composite floor slabs in fire with non-linear FE modelling. Fire and Materials, 2004, 28, 127-138.	0.9	9
78	Fire resistance of composite floors subject to compartment fires. Journal of Constructional Steel Research, 2004, 60, 339-360.	1.7	20
79	Experimental and analytical investigation of the â€˜compression zoneâ€™ component within a steel joint at elevated temperatures. Journal of Constructional Steel Research, 2004, 60, 841-865.	1.7	41
80	Experimental and analytical investigation of the â€˜tension zoneâ€™ components within a steel joint at elevated temperatures. Journal of Constructional Steel Research, 2004, 60, 867-896.	1.7	56
81	A generalised steel/reinforced concrete beam-column element model for fire conditions. Engineering Structures, 2003, 25, 817-833.	2.6	49
82	Modeling Membrane Action of Concrete Slabs in Composite Buildings in Fire. I: Theoretical Development. Journal of Structural Engineering, 2003, 129, 1093-1102.	1.7	99
83	Modeling Membrane Action of Concrete Slabs in Composite Buildings in Fire. II: Validations. Journal of Structural Engineering, 2003, 129, 1103-1112.	1.7	84
84	Fire resistance of framed buildings*. Physics Education, 2002, 37, 390-399.	0.3	2
85	Modelling of asymmetric cross-section members for fire conditions. Journal of Constructional Steel Research, 2002, 58, 389-412.	1.7	10
86	Non-linear structural modelling of a fire test subject to high restraint. Fire Safety Journal, 2001, 36, 795-814.	1.4	25
87	Modelling of plane composite frames in unpropped construction. Engineering Structures, 2000, 22, 287-303.	2.6	15
88	Effective stiffness modelling of composite concrete slabs in fire. Engineering Structures, 2000, 22, 1133-1144.	2.6	47
89	Three-Dimensional Analysis of Composite Steel-Framed Buildings in Fire. Journal of Structural Engineering, 2000, 126, 389-397.	1.7	49
90	Composite beam behaviour in braced frames. Journal of Constructional Steel Research, 1999, 49, 271-289.	1.7	6

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91	The influence of shear connectors on the behaviour of composite steel-framed buildings in fire. Journal of Constructional Steel Research, 1999, 51, 219-237.	1.7	49
92	Studies of the Behaviour of Steel Subframes with Semi-rigid Connections in Fire. Journal of Constructional Steel Research, 1999, 49, 83-98.	1.7	20
93	THREE-DIMENSIONAL MODELLING OF TWO FULL-SCALE,FIRE TESTS ON A COMPOSITE BUILDING.. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 1999, 134, 243-255.	0.4	22
94	The effect of axial restraint on the fire resistance of steel columns. Journal of Constructional Steel Research, 1998, 46, 305-306.	1.7	56
95	ELEVATED-TEMPERATURE MOMENT-ROTATION TESTS ON STEELWORK CONNECTIONS.. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 1997, 122, 410-419.	0.4	47
96	An analytical model for the analysis of composite beams with partial interaction. Computers and Structures, 1997, 62, 493-504.	2.4	44
97	The influence of connection stiffness on the behaviour of steel beams in fire. Journal of Constructional Steel Research, 1997, 43, 1-15.	1.7	25
98	A nonlinear analysis for three-dimensional steel frames in fire conditions. Engineering Structures, 1996, 18, 77-89.	2.6	92
99	The lateral-torsional buckling of unrestrained steel beams in fire. Journal of Constructional Steel Research, 1996, 36, 101-119.	1.7	40
100	The treatment of strain reversal in structural members during the cooling phase of a fire. Journal of Constructional Steel Research, 1996, 37, 115-135.	1.7	43
101	Analyses of the effects of cooling and fire spread on steel-framed buildings. Fire Safety Journal, 1996, 26, 273-293.	1.4	90
102	The analysis of semi-rigid frames in fireâ€”a secant approach. Journal of Constructional Steel Research, 1995, 33, 125-146.	1.7	17
103	A simple approach to the behaviour of steel columns in fire. Journal of Constructional Steel Research, 1994, 31, 115-134.	1.7	18
104	Failure of steel columns in fire. Fire Safety Journal, 1992, 18, 183-201.	1.4	37
105	Studies of the behaviour of steel beams in fire. Journal of Constructional Steel Research, 1991, 19, 285-312.	1.7	21
106	Analysis of beams with non-uniform temperature profile due to fire exposure. Journal of Constructional Steel Research, 1990, 16, 169-192.	1.7	24
107	A secant stiffness approach to the fire analysis of steel beams. Journal of Constructional Steel Research, 1988, 11, 105-120.	1.7	28
108	Project-based teaching software for structural design. Computers and Education, 1988, 12, 125-128.	5.1	2

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109	A new mode renumbering algorithm for bandwidth reduction. International Journal for Numerical Methods in Engineering, 1986, 23, 1693-1704.	1.5	17
110	Plastic design of steel portal frames using a microcomputer. Advances in Engineering Software (1978), 1985, 7, 110-114.	0.1	0
111	Stability of installation of marine caisson anchors in clay. Canadian Geotechnical Journal, 1983, 20, 385-393.	1.4	5
112	Analytical studies of pile wandering during installation. International Journal for Numerical and Analytical Methods in Geomechanics, 1979, 3, 49-62.	1.7	2
113	A theoretical approach to the deformation of honeycomb based composite materials. Composites, 1979, 10, 209-214.	0.9	166
114	Flutter instability in imperfect structural systems. International Journal of Non-Linear Mechanics, 1976, 11, 157-168.	1.4	1
115	The stability of slender piles during driving. Geotechnique, 1976, 26, 281-292.	2.2	6
116	A note on the directional stability of driven piles. Geotechnique, 1975, 25, 413-416.	2.2	5
117	Ritz method in non-conservative instability problems: A simple example. International Journal of Mechanical Sciences, 1974, 16, 651-659.	3.6	2
118	The post-flutter oscillations of discrete symmetric structural systems with circulatory loading. International Journal of Mechanical Sciences, 1972, 14, 471-488.	3.6	15
119	The instability of slightly compressible rectangular rubberlike solids under biaxial loadings. International Journal of Solids and Structures, 1972, 8, 133-148.	1.3	30
120	A comparison of some simple constitutive relations for slightly compressible rubber-like materials. International Journal of Mechanical Sciences, 1971, 13, 563-572.	3.6	111
121	The buckling of a radially constrained imperfect circular ring. International Journal of Mechanical Sciences, 1971, 13, 741-753.	3.6	13
122	On the equilibrium and stability of discrete one-way structural systems. International Journal of Solids and Structures, 1971, 7, 667-683.	1.3	10
123	REUSED TYRE POLYMER FIBRE FOR FIRE-SPALLING MITIGATION. Applications of Structural Fire Engineering, 0, , .	0.3	3
124	PERFORMANCE OF DIFFERENT CREEP MODELS IN THE ANALYSIS OF FIRE EXPOSED STEEL MEMBERS. Applications of Structural Fire Engineering, 0, , .	0.3	1
125	A Component-based Approach to Modelling Beam Bottom Flange Buckling at Elevated Temperatures. Applications of Structural Fire Engineering, 0, , .	0.3	1