

Gregory MacRae

List of Publications by Year in descending order

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92
papers

2,696
citations

218677

26
h-index

189892

50
g-index

96
all docs

96
docs citations

96
times ranked

1363
citing authors

#	ARTICLE	IF	CITATIONS
1	Residual Displacement Response Spectrum. Journal of Structural Engineering, 1998, 124, 523-530.	3.4	250
2	Effect of Column Stiffness on Braced Frame Seismic Behavior. Journal of Structural Engineering, 2004, 130, 381-391.	3.4	199
3	Seismic Tests of Precast Beam-to-Column Joint Subassemblages With Unbonded Tendons. PCI Journal, 1996, 41, 64-81.	0.6	187
4	Displacement-based design of RC bridge columns in seismic regions. Earthquake Engineering and Structural Dynamics, 1995, 24, 1623-1643.	4.4	165
5	Seismic resilient steel structures: A review of research, practice, challenges and opportunities. Journal of Constructional Steel Research, 2022, 191, 107172.	3.9	123
6	P- δ Effects on Single-Degree-of-Freedom Structures in Earthquakes. Earthquake Spectra, 1994, 10, 539-568.	3.1	105
7	Development of the self-centering Sliding Hinge Joint with friction ring springs. Journal of Constructional Steel Research, 2012, 78, 201-211.	3.9	102
8	Influence of steel shim hardness on the Sliding Hinge Joint performance. Journal of Constructional Steel Research, 2012, 72, 119-129.	3.9	81
9	Experimental Study of Full-Scale Self-Centering Sliding Hinge Joint Connections with Friction Ring Springs. Journal of Earthquake Engineering, 2013, 17, 972-997.	2.5	76
10	Near-Fault Ground Motion Effects on Simple Structures. Journal of Structural Engineering, 2001, 127, 996-1004.	3.4	72
11	Intensity measures for the seismic response of pile foundations. Soil Dynamics and Earthquake Engineering, 2009, 29, 1046-1058.	3.8	71
12	Damage Avoidance Design Steel Beam-Column Moment Connection Using High-Force-to-Volume Dissipators. Journal of Structural Engineering, 2009, 135, 1390-1397.	3.4	64
13	Experimental investigation of CFT column to steel beam connections under cyclic loading. Journal of Constructional Steel Research, 2013, 86, 167-182.	3.9	62
14	Proposed design models for the asymmetric friction connection. Earthquake Engineering and Structural Dynamics, 2015, 44, 1309-1324.	4.4	61
15	The sliding hinge joint moment connection. Bulletin of the New Zealand Society for Earthquake Engineering, 2010, 43, 202-212.	0.5	61
16	Three-Dimensional Steel Building Response to Near-Fault Motions. Journal of Structural Engineering, 2000, 126, 117-126.	3.4	53
17	Seismic loss estimation for efficient decision making. Bulletin of the New Zealand Society for Earthquake Engineering, 2009, 42, 96-110.	0.5	53
18	Stiffness-based approach for Belleville springs use in friction sliding structural connections. Journal of Constructional Steel Research, 2017, 138, 340-356.	3.9	49

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19	An experimental study on strength and serviceability of reinforced and steel fibre reinforced concrete (SFRC) continuous composite slabs. <i>Engineering Structures</i> , 2016, 114, 171-180.	5.3	46
20	Probabilistic seismic performance and loss assessment of a bridgeâ€“foundationâ€“soil system. <i>Soil Dynamics and Earthquake Engineering</i> , 2010, 30, 395-411.	3.8	43
21	Effect of Beam Growth on Reinforced Concrete Frames. <i>Journal of Structural Engineering</i> , 2004, 130, 1333-1342.	3.4	39
22	Experimental studies on Belleville springs use in the sliding hinge joint connection. <i>Journal of Constructional Steel Research</i> , 2019, 159, 81-94.	3.9	39
23	Dynamic Response and Fatigue of Steel Tied-Arch Bridge. <i>Journal of Bridge Engineering</i> , 2000, 5, 14-21.	2.9	35
24	Seismic performance of non-structural components and contents in buildings: an overview of NZ research. <i>Earthquake Engineering and Engineering Vibration</i> , 2016, 15, 1-17.	2.3	35
25	Fully Floating Suspended Ceiling System: Experimental Evaluation of Structural Feasibility and Challenges. <i>Earthquake Spectra</i> , 2017, 33, 1627-1654.	3.1	31
26	Prediction of spatially distributed seismic demands in specific structures: Ground motion and structural response. <i>Earthquake Engineering and Structural Dynamics</i> , 2010, 39, 501-520.	4.4	27
27	Quantifying the seismic response of structures with flexible diaphragms. <i>Earthquake Engineering and Structural Dynamics</i> , 2012, 41, 1365-1389.	4.4	27
28	Probabilistic evaluation of seismic performance of 3â€“story 3D oneâ€“and twoâ€“way steel momentâ€“frame structures. <i>Earthquake Engineering and Structural Dynamics</i> , 2008, 37, 681-696.	4.4	25
29	Experimental testing of full-scale glulam frames with buckling restrained braces. <i>Engineering Structures</i> , 2020, 222, 111081.	5.3	25
30	Axial shortening of steel columns in buildings subjected to earthquakes. <i>Bulletin of the New Zealand Society for Earthquake Engineering</i> , 2009, 42, 275-287.	0.5	25
31	Brace-Beam-Column Connections for Concentrically Braced Frames with Concrete Filled Tube Columns. <i>Journal of Structural Engineering</i> , 2004, 130, 233-243.	3.4	23
32	Effect of ground motion selection methods on seismic collapse fragility of RC frame buildings. <i>Earthquake Engineering and Structural Dynamics</i> , 2017, 46, 1875-1892.	4.4	20
33	Design and Testing of Ratcheting, Tension-Only Devices for Seismic Energy Dissipation Systems. <i>Journal of Earthquake Engineering</i> , 2020, 24, 328-349.	2.5	20
34	HF2V dissipator effects on the performance of a 3 story moment frame. <i>Journal of Constructional Steel Research</i> , 2011, 67, 1843-1849.	3.9	19
35	Building contents sliding demands in elastically responding structures. <i>Engineering Structures</i> , 2015, 86, 182-191.	5.3	19
36	Seismic fragility of suspended ceiling systems used in NZ based on component tests. <i>Bulletin of the New Zealand Society for Earthquake Engineering</i> , 2016, 49, 45-63.	0.5	18

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37	Seismic response of structures with coupled vertical stiffnessâ€“strength irregularities. Earthquake Engineering and Structural Dynamics, 2012, 41, 119-138.	4.4	17
38	Seismic Behavior of 3D Steel Moment Frame with Biaxial Columns. Journal of Structural Engineering, 2001, 127, 490-497.	3.4	16
39	Extending the Fatigue Life of Riveted Coped Stringer Connections. Journal of Bridge Engineering, 2005, 10, 69-76.	2.9	16
40	Determination of structural irregularity limits. Bulletin of the New Zealand Society for Earthquake Engineering, 2009, 42, 288-301.	0.5	16
41	Proposed Simplified Approach for the Seismic Analysis of Multi-Storey Moment Resisting Framed Buildings Incorporating Friction Sliders. Buildings, 2019, 9, 130.	3.1	15
42	Asymmetric Friction Connection (AFC) design for seismic energy dissipation. Journal of Constructional Steel Research, 2019, 157, 70-81.	3.9	15
43	Seismic Behavior of Hollow Stiffened Steel Bridge Columns. Journal of Bridge Engineering, 2001, 6, 110-119.	2.9	14
44	Probabilistic risk analysis of structural impact in seismic events for linear and nonlinear systems. Earthquake Engineering and Structural Dynamics, 2014, 43, 1565-1580.	4.4	14
45	Seismic design of yielding structures on flexible foundations. Earthquake Engineering and Structural Dynamics, 2015, 44, 1805-1821.	4.4	13
46	Strong axis low-damage performance of rocking column-base joints with asymmetric friction connections. Journal of Constructional Steel Research, 2022, 191, 107175.	3.9	12
47	Post-event damage assessment of concrete using the fluorescent microscopy technique. Cement and Concrete Research, 2017, 102, 203-211.	11.0	11
48	Comparison of New Zealand standards used for seismic design of concrete buildings. Bulletin of the New Zealand Society for Earthquake Engineering, 2009, 42, 187-203.	0.5	11
49	The Sliding Hinge Joint: Final Steps towards an Optimum Low Damage Seismic-Resistant Steel System. Key Engineering Materials, 0, 763, 751-760.	0.4	10
50	Lessons for loss assessment from the Canterbury earthquakes: a 22-storey building. Bulletin of Earthquake Engineering, 2021, 19, 2081-2104.	4.1	10
51	Prediction of spatially distributed seismic demands in specific structures: Structural response to loss estimation. Earthquake Engineering and Structural Dynamics, 2010, 39, 591-613.	4.4	9
52	Seismic behaviour of symmetric friction connections for steel buildings. Engineering Structures, 2020, 224, 111200.	5.3	8
53	EVALUATION OF SEISMIC RESPONSE OF MULTI-STORY STRUCTURES USING DYNAMIC STABILITY COEFFICIENTS : Continuous column effects in steel moment frames in perspective of dynamic stability Part 1. Journal of Structural and Construction Engineering, 2007, 72, 57-64.	0.5	7
54	Dynamic Stability and Design of C-Bent Columns. Journal of Earthquake Engineering, 2013, 17, 750-768.	2.5	7

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55	Seismic behavior of steel buildings with out-of-plumb. Earthquake Engineering and Structural Dynamics, 2015, 44, 2575-2588.	4.4	7
56	Braced Frame Symmetrical and Asymmetrical Friction Connection Performance. Key Engineering Materials, 2018, 763, 216-223.	0.4	7
57	New Zealand Research Applications of, and Developments in, Low Damage Technology for Steel Structures. Key Engineering Materials, 0, 763, 3-10.	0.4	7
58	Hysteretic Behaviour of Asymmetrical Friction Connections Using Brake Pads of D3923. Structures, 2018, 16, 164-175.	3.6	7
59	Structural straightening with tension braces using aftershocks " Shaking table study. Soil Dynamics and Earthquake Engineering, 2019, 123, 399-412.	3.8	7
60	EVALUATION OF SIMPLIFICATION OF 2D MOMENT FRAME TO 1D MDOF COUPLED SHEAR-FLEXURAL-BEAM MODEL. Journal of Structural and Construction Engineering, 2006, 71, 41-48.	0.5	6
61	Behaviour of the bottom and top flange plates in the Sliding Hinge Joint. Bulletin of the New Zealand Society for Earthquake Engineering, 2013, 46, 1-10.	0.5	6
62	Replaceable Rotational Viscoelastic Dampers for Improving Structural Damping and Resilience of Steel Frames. Journal of Earthquake Engineering, 2023, 27, 787-809.	2.5	6
63	Validating the sliding mechanics of office-type furniture using shake-table experiments. Bulletin of the New Zealand Society for Earthquake Engineering, 2018, 51, 1-11.	0.5	5
64	Linear and Nonlinear Seismic Structural Impact Response Spectral Analyses. Advances in Structural Engineering, 2015, 18, 555-569.	2.4	4
65	Dynamic Friction Coefficient and Performance of Asymmetric Friction Connections. Structures, 2018, 14, 416-423.	3.6	4
66	Steel Building Friction Connection Seismic Performance " Corrosion Effects. Structures, 2019, 19, 96-109.	3.6	4
67	Asymmetric Friction Connection Bolt Lever Arm Effects on Hysteretic Behaviour. Journal of Earthquake Engineering, 2022, 26, 1543-1564.	2.5	4
68	Analytical simulation of seismic collapse of RC frame buildings. Bulletin of the New Zealand Society for Earthquake Engineering, 2015, 48, 157-169.	0.5	4
69	Performance Analysis of Energy Dissipators and Isolators Placed in Bridges to Prevent Structural Damage in Columns. Journal of Earthquake Engineering, 2012, 16, 1113-1131.	2.5	3
70	Nonlinear design and sizing of semi-active resettable dampers for seismic performance. Engineering Structures, 2012, 39, 139-147.	5.3	3
71	Short-term behaviour of reinforced and steel fibre-reinforced concrete composite slabs with steel decking under negative bending moment. Advances in Structural Engineering, 2018, 21, 1288-1301.	2.4	3
72	Asymmetrical friction connections post-heating behaviour. Journal of Constructional Steel Research, 2018, 149, 119-129.	3.9	3

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73	BRB system stability considering frame out-of-plane loading and deformation zone. Bulletin of the New Zealand Society for Earthquake Engineering, 2021, 54, 31-39.	0.5	3
74	Viscous and hysteretic damping. Bulletin of the New Zealand Society for Earthquake Engineering, 2012, 45, 23-30.	0.5	3
75	Generalised nonlinear modeling of unstable stick-slip force reduction effects in friction energy dissipation devices. Bulletin of the New Zealand Society for Earthquake Engineering, 2014, 47, 217-223.	0.5	3
76	Development and spectral analysis of an advanced diamond shaped resettable device control law. Engineering Structures, 2012, 40, 1-8.	5.3	2
77	Residual Capacity and Permeability-Based Damage Assessment of Concrete in Damaged RC Columns. Journal of Materials in Civil Engineering, 2018, 30, .	2.9	2
78	Displacement Estimation of Elastic Structures with Unbalanced Stiffness Using Energy Approach. Journal of Earthquake Engineering, 2021, 25, 1112-1130.	2.5	2
79	Plastic hinge location in columns of steel frames subjected to seismic actions. Bulletin of the New Zealand Society for Earthquake Engineering, 2008, 41, 1-9.	0.5	2
80	Effects of coupled vertical stiffness-strength irregularity due to modified interstorey height. Bulletin of the New Zealand Society for Earthquake Engineering, 2011, 44, 31-44.	0.5	2
81	Wall building stiffness and strength effect on content sliding in Wellington seismic conditions. Earthquake Engineering and Structural Dynamics, 2017, 46, 1023-1042.	4.4	1
82	SEISMIC RELIABILITY OF 3D 1-WAY AND 2-WAY STEEL MOMENT FRAME STRUCTURES EVALUATED BY PROBABILISTIC APPROACH. Journal of Structural and Construction Engineering, 2007, 72, 65-72.	0.5	1
83	HYSTERESIS LOOP EFFECTS ON STABILITY AND MAXIMUM DRIFT OF STRUCTURES. Journal of Structural and Construction Engineering, 2006, 71, 137-144.	0.5	1
84	Plastic hinge locations in steel columns. Bulletin of the New Zealand Society for Earthquake Engineering, 2010, 43, 7-12.	0.5	1
85	Suitability of CFT columns for New Zealand moment frames. Bulletin of the New Zealand Society for Earthquake Engineering, 2015, 48, 63-79.	0.5	1
86	Structural Health Monitoring using Adaptive LMS Filters. , 2008, , .		0
87	Analytical investigation on the seismic performance of slabs in RC frame joints. Magazine of Concrete Research, 2015, 67, 1179-1189.	2.0	0
88	Author's reply to discussion on: probabilistic risk analysis of structural impact in seismic events for linear and nonlinear systems. Earthquake Engineering and Structural Dynamics, 2015, 44, 495-498.	4.4	0
89	Numerical Study of Asymmetric Friction Connections (AFC) with Large Grip Length Bolts. Key Engineering Materials, 0, 763, 600-608.	0.4	0
90	Bidirectional loading performance of gusset plates in buckling restrained braced frames. Engineering Structures, 2021, 242, 112521.	5.3	0

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91	Seismic response of torsionally irregular single story structures. Bulletin of the New Zealand Society for Earthquake Engineering, 2019, 52, 44-53.	0.5	0
92	Diaphragm axial capacity for external diaphragm connections (EDCs) in square CFST column structures. Bulletin of the New Zealand Society for Earthquake Engineering, 2019, 52, 134-140.	0.5	0