Keh-Chyuan Tsai

List of Publications by Year
in descending order

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89 papers	2,370 citations	201674 27 h-index	223800 46 g-index
89 all docs	89 docs citations	89 times ranked	1121 citing authors

#	Article	IF	Citations
1	Precast concrete wall with end columns (PreWEC) for earthquake resistant design. Earthquake Engineering and Structural Dynamics, 2015, 44, 2075-2092.	4.4	123
2	Seismic selfâ€centering steel beamâ€toâ€column moment connections using bolted friction devices. Earthquake Engineering and Structural Dynamics, 2008, 37, 627-645.	4.4	116
3	Pseudoâ€dynamic tests of a fullâ€scale CFT/BRB frameâ€"Part I: Specimen design, experiment and analysis. Earthquake Engineering and Structural Dynamics, 2008, 37, 1081-1098.	4.4	115
4	Pseudoâ€dynamic test of a fullâ€scale CFT/BRB frameâ€"Part II: Seismic performance of bucklingâ€restrained braces and connections. Earthquake Engineering and Structural Dynamics, 2008, 37, 1099-1115.	4.4	110
5	Highâ€mode buckling responses of bucklingâ€restrained brace core plates. Earthquake Engineering and Structural Dynamics, 2014, 43, 375-393.	4.4	104
6	Testing of Full-Scale Two-Story Steel Plate Shear Wall with Reduced Beam Section Connections and Composite Floors. Journal of Structural Engineering, 2008, 134, 364-373.	3.4	102
7	Overview of Taiwan Earthquake Loss Estimation System. Natural Hazards, 2006, 37, 23-37.	3.4	89
8	Evaluating performance of post-tensioned steel connections with strands and reduced flange plates. Earthquake Engineering and Structural Dynamics, 2006, 35, 1167-1185.	4.4	89
9	Retrofit of reinforced concrete frames with bucklingâ€restrained braces. Earthquake Engineering and Structural Dynamics, 2015, 44, 59-78.	4.4	71
10	Seismic design and hybrid tests of a fullâ€scale threeâ€story bucklingâ€restrained braced frame using welded end connections and thin profile. Earthquake Engineering and Structural Dynamics, 2012, 41, 1001-1020.	4.4	64
11	Welded endâ€slot connection and debonding layers for bucklingâ€restrained braces. Earthquake Engineering and Structural Dynamics, 2014, 43, 1785-1807.	4.4	64
12	Seismic analysis of two-way asymmetric building systems under bi-directional seismic ground motions. Earthquake Engineering and Structural Dynamics, 2008, 37, 305-328.	4.4	63
13	Selfâ€centering steel connections with steel bars and a discontinuous composite slab. Earthquake Engineering and Structural Dynamics, 2009, 38, 403-422.	4.4	55
14	Object-oriented development and application of a nonlinear structural analysis framework. Advances in Engineering Software, 2009, 40, 66-82.	3.8	55
15	Influence of gusset plate connections and braces on the seismic performance of Xâ€braced frames. Earthquake Engineering and Structural Dynamics, 2011, 40, 355-374.	4.4	52
16	Investigation of the seismic response of three-story special concentrically braced frames. Journal of Constructional Steel Research, 2012, 77, 131-144.	3.9	51
17	Seismic design and testing of bucklingâ€restrained braces with a thin profile. Earthquake Engineering and Structural Dynamics, 2016, 45, 339-358.	4.4	45
18	Improved time integration for pseudodynamic tests. Earthquake Engineering and Structural Dynamics, 1998, 27, 711-730.	4.4	42

#	Article	IF	Citations
19	Seismic design and test of gusset connections for bucklingâ€restrained braced frames. Earthquake Engineering and Structural Dynamics, 2014, 43, 565-587.	4.4	40
20	Experimental Investigation of Chevron Concentrically Braced Frames with Yielding Beams. Journal of Structural Engineering, 2016, 142, 04016123.	3.4	39
21	Dual compensation strategy for realâ€time hybrid testing. Earthquake Engineering and Structural Dynamics, 2013, 42, 1-23.	4.4	34
22	Simplified seismic analysis of asymmetric building systems. Earthquake Engineering and Structural Dynamics, 2007, 36, 459-479.	4.4	33
23	Cyclic test of a coupled steel plate shear wall substructure. Earthquake Engineering and Structural Dynamics, 2012, 41, 1277-1299.	4.4	32
24	An online optimization method for bridge dynamic hybrid simulations. Simulation Modelling Practice and Theory, 2012, 28, 42-54.	3.8	31
25	Adaptive model-based tracking control for real-time hybrid simulation. Bulletin of Earthquake Engineering, 2015, 13, 1633-1653.	4.1	31
26	Seismic design and experiment of single and coupled corner gusset connections in a fullâ€scale twoâ€story bucklingâ€restrained braced frame. Earthquake Engineering and Structural Dynamics, 2015, 44, 2177-2198.	4.4	30
27	Biâ€directional coupled tuned mass dampers for the seismic response control of twoâ€way asymmetricâ€plan buildings. Earthquake Engineering and Structural Dynamics, 2011, 40, 675-690.	4.4	29
28	Realâ€time hybrid testing of a smart base isolation system. Earthquake Engineering and Structural Dynamics, 2014, 43, 139-158.	4.4	27
29	Full-Scale Pseudodynamic Testing of Self-Centering Steel Plate Shear Walls. Journal of Structural Engineering, 2016, 142, .	3.4	27
30	Bidirectional substructure pseudoâ€dynamic tests and analysis of a fullâ€scale twoâ€story bucklingâ€restrained braced frame. Earthquake Engineering and Structural Dynamics, 2016, 45, 1085-1107.	4.4	26
31	Hybrid experimental performance of a fullâ€scale twoâ€story bucklingâ€restrained braced RC frame. Earthquake Engineering and Structural Dynamics, 2017, 46, 1223-1244.	4.4	25
32	Seismic Design and Hybrid Tests of a Full-Scale Three-Story Concentrically Braced Frame using In-Plane Buckling Braces. Earthquake Spectra, 2013, 29, 1043-1067.	3.1	24
33	ISEE: Internet-based Simulation for Earthquake Engineeringâ€"Part II: The application protocol approach. Earthquake Engineering and Structural Dynamics, 2007, 36, 2307-2323.	4.4	23
34	ISEE: Internetâ€based Simulation for Earthquake Engineeringâ€"Part I: Database approach. Earthquake Engineering and Structural Dynamics, 2007, 36, 2291-2306.	4.4	22
35	Cyclic tests of four twoâ€story narrow steel plate shear walls. Part 2: experimental results and design implications. Earthquake Engineering and Structural Dynamics, 2010, 39, 801-826.	4.4	21
36	Sub-structural pseudo-dynamic performance of two full-scale two-story steel plate shear walls. Journal of Constructional Steel Research, 2010, 66, 1467-1482.	3.9	20

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37	Extremely large displacement dynamic analysis of elasticâ€“plastic plane frames. Earthquake Engineering and Structural Dynamics, 2011, 40, 1515-1533.	4.4	20
38	Seismic History Analysis of Asymmetric Buildings with Soilâ€“Structure Interaction. Journal of Structural Engineering, 2009, 135, 101-112.	3.4	19
39	Cyclic tests of four twoâ€story narrow steel plate shear wallsâ€”Part 1: Analytical studies and specimen design. Earthquake Engineering and Structural Dynamics, 2010, 39, 775-799.	4.4	18
40	Seismic retrofit of reinforced concrete frames using bucklingâ€restrained braces with bearing block load transfer mechanism. Earthquake Engineering and Structural Dynamics, 2016, 45, 2303-2326.	4.4	18
41	Seismic performance analysis of BRBs and gussets in a fullâ€scale 2â€story BRBâ€RCF specimen. Earthquake Engineering and Structural Dynamics, 2018, 47, 2366-2389.	4.4	18
42	Analytical studies of a full-scale steel building shaken to collapse. Engineering Structures, 2010, 32, 3418-3430.	5.3	17
43	Earthquake response analyses of a fullâ€scale fiveâ€story steel frame equipped with two types of dampers. Earthquake Engineering and Structural Dynamics, 2013, 42, 1301-1320.	4.4	17
44	Critical limit states in seismic bucklingâ€restrained brace and connection designs. Earthquake Engineering and Structural Dynamics, 2015, 44, 1559-1579.	4.4	17
45	Seismic steel jacketing of rectangular RC bridge columns for the mitigation of lapâ€splice failures. Earthquake Engineering and Structural Dynamics, 2010, 39, 1687-1710.	4.4	16
46	Simplified seismic analysis of one-way asymmetric elastic systems with supplemental damping. Earthquake Engineering and Structural Dynamics, 2007, 36, 783-800.	4.4	15
47	Research Needs and Future Directions for Steel Plate Shear Walls. , 2008, , .		14
48	Seismic rehabilitation performance of steel side plate moment connections. Earthquake Engineering and Structural Dynamics, 2010, 39, 23-44.	4.4	14
49	A control framework for uniaxial shaking tables considering tracking performance and system robustness. Structural Control and Health Monitoring, 2017, 24, e2015.	4.0	14
50	Study on the Fragility of Building Structures in Taiwan. Natural Hazards, 2006, 37, 55-69.	3.4	13
51	A Ground Motion Scaling Method considering Higher-Mode Effects and Structural Characteristics. Earthquake Spectra, 2010, 26, 841-867.	3.1	13
52	Seismic design and testing of the bottom vertical boundary elements in steel plate shear walls. Part 2: experimental studies. Earthquake Engineering and Structural Dynamics, 2014, 43, 2155-2177.	4.4	13
53	Cyclic tests of steel plate shear walls using boxâ€shape vertical boundary elements with or without infill concrete. Earthquake Engineering and Structural Dynamics, 2017, 46, 2537-2564.	4.4	12
54	Educational Reconnaissance of the Area Affected by the 1999 Chi-Chi Earthquakeâ€”Three Years Later. Earthquake Spectra, 2005, 21, 31-52.	3.1	11

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55	Coupled Tuned Mass Dampers for the Seismic Control of Asymmetric-Plan Buildings. Earthquake Spectra, 2010, 26, 749-778.	3.1	11
56	Understanding the trends in torsional effects in asymmetric-plan buildings. Bulletin of Earthquake Engineering, 2012, 10, 955-965.	4.1	11
57	Experimental and analytical investigations of steel panel dampers for seismic applications in steel moment frames. Earthquake Engineering and Structural Dynamics, 2018, 47, 1416-1439.	4.4	10
58	Inelastic behavior and seismic design of multistory chevron-braced frames with yielding beams. Journal of Constructional Steel Research, 2020, 167, 105817.	3.9	9
59	Modal Parameters for the Analysis of Inelastic Asymmetric-Plan Structures. Earthquake Spectra, 2009, 25, 821-849.	3.1	8
60	Seismic performance evaluation of a 34â€story steel building retrofitted with response modification elements. Earthquake Engineering and Structural Dynamics, 2009, 38, 759-781.	4.4	8
61	Inelastic Responses of Two-Way Asymmetric-Plan Structures under Bidirectional Ground Excitationsâ€"Part II: Response Spectra. Earthquake Spectra, 2012, 28, 141-157.	3.1	7
62	Seismic design and testing of the bottom vertical boundary elements in steel plate shear walls. Part 1: design methodology. Earthquake Engineering and Structural Dynamics, 2014, 43, 2237-2259.	4.4	7
63	Two-degree-of-freedom modal response history analysis of buildings with specific vertical irregularities. Engineering Structures, 2019, 184, 505-523.	5.3	7
64	Seismic fracture evaluation of diaphragm joints in welded beamâ€toâ€box column moment connections. Earthquake Engineering and Structural Dynamics, 2020, 49, 1344-1362.	4.4	7
65	Plasticity-fibre model for steel triangular plate energy dissipating devices. Earthquake Engineering and Structural Dynamics, 2002, 31, 1643-1655.	4.4	6
66	Full-scale fatigue tests of a cable-to-orthotropic bridge deck connection. Journal of Constructional Steel Research, 2012, 70, 264-272.	3.9	6
67	Parameter identification for onâ€line model updating in hybrid simulations using a gradientâ€based method. Earthquake Engineering and Structural Dynamics, 2018, 47, 269-293.	4.4	6
68	Stiffness configuration of strongbacks to mitigate inter-story drift concentration in buildings. Engineering Structures, 2019, 199, 109615.	5.3	6
69	Hybrid testing with model updating on steel panel damper substructures using a multiâ€axial testing system. Earthquake Engineering and Structural Dynamics, 2019, 48, 347-365.	4.4	6
70	Optimization Approach to Uniformly Distributed Peak Interstory Drifts along Building Heights. Journal of Structural Engineering, 2019, 145, .	3.4	6
71	Seismic Analysis of Non Proportionally Damped Two-Way Asymmetric Elastic Buildings Under Bi-Directional Seismic Ground Motions. Journal of Earthquake Engineering, 2008, 12, 1139-1156.	2.5	5
72	Cyclic responses of three 2-story seismic concentrically braced frames. Frontiers of Architecture and Civil Engineering in China, 2010, 4, 287-301.	0.4	5

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73	Estimation of the seismic energy demands of two-way asymmetric-plan building systems. Bulletin of Earthquake Engineering, 2011, 9, 603-621.	4.1	5
74	Real-valued modal response history analysis for asymmetric-plan buildings with nonlinear viscous dampers. Soil Dynamics and Earthquake Engineering, 2015, 77, 97-110.	3.8	5
75	Inelastic Responses of Two-Way Asymmetric-Plan Structures under Bidirectional Ground Excitationsâ€"Part I: Modal Parameters. Earthquake Spectra, 2012, 28, 105-139.	3.1	4
76	Application of Supplemental Damping Characteristics to Response Spectrum Analyses of Nonproportionally Damped Multistory Asymmetric-Plan Buildings. Earthquake Spectra, 2013, 29, 207-232.	3.1	4
77	An Energy-Based Approach to the Generalized Optimal Locations of Viscous Dampers in Two-Way Asymmetrical Buildings. Earthquake Spectra, 2014, 30, 867-889.	3.1	4
78	Suitability of using the torsional amplification factor to amplify accidental torsion. Engineering Structures, 2016, 127, 1-17.	5.3	4
79	Experimental investigations on seismic behavior and design of bottom vertical boundary elements in multiâ€story steel plate shear walls. Earthquake Engineering and Structural Dynamics, 2018, 47, 2777-2801.	4.4	3
80	Evaluating out-of-plane stability for welded BRBs considering flexural restrainer and gusset rotations. Journal of Constructional Steel Research, 2019, 159, 161-175.	3.9	2
81	Evaluating the reliability of using the deflection amplification factor to estimate design displacements with accidental torsion effects. Earthquake and Structures, 2015, 8, 443-462.	1.0	2
82	Construction of Response Spectra for Inelastic Asymmetric-Plan Structures. Geotechnical, Geological and Earthquake Engineering, 2010, , 203-211.	0.2	1
83	Effective oscillators for the seismic analysis of inelastic one-way asymmetric-plan buildings. Engineering Structures, 2013, 52, 38-52.	5.3	1
84	Experimental Investigation on the Seismic Retrofit of Existing Reinforced Concrete Buildings Using Steel Plate Shear Walls. , 2015, , .		1
85	High Performance Steel Material and Structures for Earthquake Resistant Buildings. , 2008, , 155-206.		0
86	11.37: Hybrid tests of a fullâ€scale twoâ€story bucklingâ€restrained braced RC frame. Ce/Papers, 2017, 1, 3139-3147.	0.3	0
87	Pseudo-dynamic Performance Evaluation of Full Scale Seismic Steel Braced Frame Braced frame Braced frame Braced frame s Using Buckling-Restrained and In-Plane Buckling Braces. Geotechnical, Geological and Earthquake Engineering, 2014, , 237-249.	0.2	0
88	Theory and Applications of the 3-DOF Modal System for PBSE of Asymmetrical Buildings Asymmetrical buildings Asymmetrical buildings Asymmetrical buildings Asymmetrical buildings. Geotechnical, Geological and Earthquake Engineering, 2014, , 251-261.	0.2	0
89	Optimization of Steel Panel Damper Design for Seismic Moment Frames. Lecture Notes in Civil Engineering, 2020, , 319-327.	0.4	0