

# Larry A Fahnestock

## List of Publications by Year in descending order

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Version: 2024-02-01

88

papers

2,583

citations

236925

25

h-index

197818

49

g-index

91

all docs

91

docs citations

91

times ranked

1085

citing authors

#	ARTICLE	IF	CITATIONS
1	Construction and Live Load Behavior of a Skewed Steel I-Girder Bridge. Transportation Research Record, 2024, 2678, 846-860.	1.9	1
2	Seismic behavior assessment for design of integral abutment bridges in Illinois. Earthquake Engineering and Engineering Vibration, 2022, 21, 573-589.	2.3	0
3	Synthesis of Bridge Approach Slab Behavior, Design, and Construction Practice. Practice Periodical on Structural Design and Construction, 2022, 27, .	1.3	4
4	Seismic Performance Assessment of Quasi-Isolated Highway Bridges with Seat-Type Abutments. Journal of Earthquake Engineering, 2021, 25, 2285-2324.	2.5	5
5	Field Behavior of Integral Abutment Bridges under Thermal Loading. Journal of Bridge Engineering, 2021, 26, .	2.9	13
6	Parametric Collapse Performance of Low-Ductility Concentrically Braced Frames with Reserve Capacity. Journal of Structural Engineering, 2021, 147, .	3.4	2
7	Dual system design for a low-ductility concentrically braced frame with a reserve moment frame. Structures, 2021, 34, 3315-3328.	3.6	2
8	Simulating offset blast loads experimentally using shake-table-generated ground motions: Method development and validation. Structural Control and Health Monitoring, 2020, 27, e2480.	4.0	2
9	Experimental Parametric Characterization of Bolted Angle Connection Behavior. Journal of Structural Engineering, 2020, 146, .	3.4	14
10	Full-Scale Cyclic Rotation and Shear-Load Testing of Double Web with Top and Seat Angle Beam-Column Connections. Journal of Structural Engineering, 2020, 146, 04020164.	3.4	6
11	Rotational Capacity of Bolted Double-Web-Angle Beam-Column Gravity Connections through Full-Scale Experimental Testing. Journal of Structural Engineering, 2020, 146, .	3.4	8
12	Seismic Performance Assessment of Low-Ductility Concentrically Braced Frames. Journal of Structural Engineering, 2019, 145, .	3.4	17
13	Modification of Ground Motions for Use in Central North America. Journal of Earthquake Engineering, 2019, 23, 1385-1406.	2.5	5
14	Contribution of Beam-Column Connections with Bolted Angles in the Reserve Capacity and Full-Scale Cyclic Testing. Key Engineering Materials, 2018, 763, 475-484.	0.4	2
15	Seismic modeling of integral abutment bridges in Illinois. Engineering Structures, 2018, 165, 170-183.	5.3	25
16	Cyclic Experimental Behavior of Nonseismic Elastomeric Bearings with Stiffened Angle Side Retainer Fuses for Quasi-Isolated Seismic Bridge Response. Journal of Bridge Engineering, 2018, 23, 04017120.	2.9	4
17	Assessment of design parameters influencing seismic collapse performance of buckling-restrained braced frames. Soil Dynamics and Earthquake Engineering, 2018, 113, 35-46.	3.8	40
18	Seismic analysis incorporating detailed structure-“abutment”-foundation interaction for quasi-isolated highway bridges. Structure and Infrastructure Engineering, 2017, 13, 581-603.	3.7	13

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19	Full-Scale Cyclic Testing of Low-Ductility Concentrically Braced Frames. Journal of Structural Engineering, 2017, 143, .	3.4	42
20	Parametric Study of Low-Ductility Concentrically Braced Frames under Cyclic Static Loading. Journal of Structural Engineering, 2017, 143, .	3.4	23
21	Boundary frame contribution in coupled and uncoupled steel plate shear walls. Earthquake Engineering and Structural Dynamics, 2017, 46, 2355-2380.	4.4	18
22	Nonlinear Static Pushover and Eigenvalue Modal Analyses of Quasi-Isolated Highway Bridges with Seat-Type Abutments. Structures, 2017, 12, 145-167.	3.6	6
23	Large-Scale Cyclic Testing of Steel-Plate Shear Walls with Coupling. Journal of Structural Engineering, 2017, 143, .	3.4	21
24	Response attenuation in a large-scale structure subjected to blast excitation utilizing a system of essentially nonlinear vibration absorbers. Journal of Sound and Vibration, 2017, 389, 52-72.	3.9	68
25	Comparison of seismic design provisions for buckling restrained braced frames in Canada, United States, Chile, and New Zealand. Structures, 2016, 8, 183-196.	3.6	18
26	Seismic Performance Assessment of Multitiered Steel Concentrically Braced Frames Designed in Accordance with the 2010 AISC Seismic Provisions. Journal of Structural Engineering, 2016, 142, .	3.4	32
27	Numerical Simulations of Steel Integral Abutment Bridges under Thermal Loading. Journal of Bridge Engineering, 2016, 21, .	2.9	19
28	Analysis and Design of Two-Tiered Steel Braced Frames under In-Plane Seismic Demand. Journal of Structural Engineering, 2016, 142, .	3.4	17
29	Strong-Axis Stability of Wide Flange Steel Columns in the Presence of Weak-Axis Flexure. Journal of Structural Engineering, 2016, 142, 04016004.	3.4	19
30	Measured Seismic Behavior of Hybrid Masonry Structural Systems. Journal of Structural Engineering, 2016, 142, .	3.4	3
31	Performance of Nonseismic PTFE Sliding Bearings When Subjected to Seismic Demands. Journal of Bridge Engineering, 2016, 21, .	2.9	13
32	Experimental Behavior of a Half-Scale Steel Concrete Composite Floor System Subjected To Column Removal Scenarios. Journal of Structural Engineering, 2016, 142, .	3.4	63
33	Numerical Simulations and Field Monitoring of Integral Abutment Bridges. , 2015, , .		1
34	Full-Scale Cyclic Testing of an Ordinary Concentrically-Braced Frame. , 2015, , .		1
35	Analysis of a Half-Scale Composite Floor System Test under Column Loss Scenarios. , 2015, , .		0
36	Innovations in Steel Design: Research Needs for Global Sustainability. Journal of Structural Engineering, 2015, 141, .	3.4	8

#	ARTICLE	IF	CITATIONS
37	Experimental Characterization of Composite Slab Collapse Resistance for Steel Gravity Frames. , 2014, , .		1
38	Quantification of Fuse Capacity for Elastomeric and Low-Profile Steel Fixed Bridge Bearings in Regions with High-Magnitude Earthquakes at Long Recurrence Intervals. , 2014, , .		0
39	Seismic Behavior of Low-Ductility Concentrically-Braced Frames. , 2014, , .		6
40	Large-Scale Testing of Low-Ductility, Concentrically-Braced Frames. , 2014, , .		8
41	Experimental Behavior of Bolted Angles and Beam-to-Column Connections. , 2014, , .		3
42	Experimental Behavior of Low-Ductility Brace Connection Limit States. , 2014, , .		9
43	Experimental Testing and Numerical Simulation of a Six-Story Structure Incorporating Two-Degree-of-Freedom Nonlinear Energy Sink. Journal of Structural Engineering, 2014, 140, .	3.4	62
44	Computational study of self-centering buckling-restrained braced frame seismic performance. Earthquake Engineering and Structural Dynamics, 2014, 43, 1897-1914.	4.4	140
45	Realization of a Strongly Nonlinear Vibration-Mitigation Device Using Elastomeric Bumpers. Journal of Engineering Mechanics - ASCE, 2014, 140, .	2.9	33
46	Large-scale experimental evaluation and numerical simulation of a system of nonlinear energy sinks for seismic mitigation. Engineering Structures, 2014, 77, 34-48.	5.3	83
47	Three-Dimensional Finite Element Simulation of the Seismic Behavior of Multitier Concentrically Braced Frames. , 2014, , .		2
48	Design, simulation, and large-scale testing of an innovative vibration mitigation device employing essentially nonlinear elastomeric springs. Earthquake Engineering and Structural Dynamics, 2014, 43, 1829-1851.	4.4	34
49	Experimental Behavior of Steel Fixed Bearings and Implications for Seismic Bridge Response. Journal of Bridge Engineering, 2014, 19, .	2.9	19
50	Large-Scale Testing of a Steel-Concrete Composite Floor System under Column Loss Scenarios. , 2014, , .		5
51	Cyclic Experimental Behavior of Angles and Applications for Connection Design and Modeling. , 2014, , .		6
52	Seismic Design and Analysis of Steel Plate Shear Walls with Coupling. Journal of Structural Engineering, 2013, 139, 1263-1273.	3.4	30
53	Seismic Response of Single-Degree-of-Freedom Systems Representing Low-Ductility Steel Concentrically Braced Frames with Reserve Capacity. Journal of Structural Engineering, 2013, 139, 199-211.	3.4	16
54	Evaluation of quasi-isolated seismic bridge behavior using nonlinear bearing models. Engineering Structures, 2013, 49, 168-181.	5.3	63

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55	Seismic performance of highway bridges with fusing bearing components for quasi-isolation. Earthquake Engineering and Structural Dynamics, 2013, 42, 1375-1394.	4.4	45
56	Simulation of Steel Brace Hysteretic Response Using the Force Analogy Method. Journal of Structural Engineering, 2013, 139, 526-536.	3.4	28
57	Investigation of Dry Friction Effect of Shroud Damping Wire on Model Test Bladed Wheel. , 2013, , .		1
58	Experimental Blast Testing of a Large 9-Story Structure Equipped With a System of Nonlinear Energy Sinks. , 2013, , .		6
59	Shear and Friction Response of Nonseismic Laminated Elastomeric Bridge Bearings Subject to Seismic Demands. Journal of Bridge Engineering, 2013, 18, 612-623.	2.9	74
60	Seismic Design and Viability of Hybrid Masonry Building Systems. Journal of Structural Engineering, 2013, 139, 411-421.	3.4	5
61	Impact of Residual Stresses and Initial Imperfections on the Seismic Response of Steel Moment Frames. Journal of Structural Engineering, 2012, 138, 942-951.	3.4	9
62	Simulation and Testing of a 6-Story Structure Incorporating a Coupled Two Mass Nonlinear Energy Sink. , 2012, , .		4
63	Passive damping enhancement of a two-degree-of-freedom system through a strongly nonlinear two-degree-of-freedom attachment. Journal of Sound and Vibration, 2012, 331, 5393-5407.	3.9	89
64	Overview of AISC/NSF Structural Integrity Research and Preliminary Results. , 2012, , .		13
65	Development and experimental validation of a nickel-titanium shape memory alloy self-centering buckling-restrained brace. Engineering Structures, 2012, 40, 288-298.	5.3	384
66	Cyclic flexural analysis and behavior of beam-column connections with gusset plates. Journal of Constructional Steel Research, 2012, 72, 227-239.	3.9	20
67	Behavior and mechanisms of steel plate shear walls with coupling. Journal of Constructional Steel Research, 2012, 74, 8-16.	3.9	32
68	Cyclic Flexural Testing of Concentrically Braced Frame Beam-Column Connections. Journal of Structural Engineering, 2011, 137, 739-747.	3.4	52
69	Design and Testing of Coupled Steel Plate Shear Walls. , 2011, , .		0
70	Self-Centering Buckling-Restrained Braces for Advanced Seismic Performance. , 2011, , .		18
71	Evaluation of buckling-restrained braced frame seismic performance considering reserve strength. Engineering Structures, 2011, 33, 77-89.	5.3	107
72	Seismic Response of Bearings for Quasi-Isolated Bridges—Testing and Component Modeling. , 2011, , .		8

#	ARTICLE	IF	CITATIONS
73	Computational Analyses of Quasi-Isolated Bridges with Fusing Bearing Components. , 2011, , .		5
74	Behavior of multi-story steel buildings under dynamic column loss scenarios. Steel and Composite Structures, 2011, 11, 149-168.	1.3	16
75	Buckling-restrained braced frame connection performance. Journal of Constructional Steel Research, 2010, 66, 65-74.	3.9	59
76	Basic Mechanisms for Hybrid Masonry Structures. , 2010, , .		2
77	Flexural Behavior of Concentrically-Braced Frame Beam-Column Connections. , 2010, , .		2
78	Impact of Reserve Strength on Buckling-Restrained Braced Frame Performance. , 2010, , .		0
79	Interface of the Direct Analysis Method and Seismic Design. , 2009, , .		1
80	Ductility capacity models for buckling-restrained braces. Journal of Constructional Steel Research, 2009, 65, 1712-1720.	3.9	34
81	Assessment of buckling-restrained braced frame reliability using an experimental limit-state model and stochastic dynamic analysis. Earthquake Engineering and Engineering Vibration, 2009, 8, 373-385.	2.3	8
82	Cyclic Behavior and Performance of Beam-Column Connections in Concentrically Braced Frames. , 2009, , .		0
83	Ductility Capacity Models for Buckling-Restrained Braces Using a Bayesian Methodology. , 2008, , .		4
84	Seismic Response and Performance of Buckling-Restrained Braced Frames. Journal of Structural Engineering, 2007, 133, 1195-1204.	3.4	151
85	Experimental Evaluation of a Large-Scale Buckling-Restrained Braced Frame. Journal of Structural Engineering, 2007, 133, 1205-1214.	3.4	266
86	Ductility demands on buckling-restrained braced frames under earthquake loading. Earthquake Engineering and Engineering Vibration, 2003, 2, 255-268.	2.3	52
87	Strength and Ductility of HPS-100W I-Girders in Negative Flexure. Journal of Bridge Engineering, 2001, 6, 316-323.	2.9	25
88	Seismic Stability of Buckling-Restrained Braced Frames. Key Engineering Materials, 0, 763, 924-931.	0.4	5