

# Amit Varma

## List of Publications by Year in descending order

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152  
papers

3,270  
citations

172457

29  
h-index

168389

53  
g-index

154  
all docs

154  
docs citations

154  
times ranked

1104  
citing authors

#	ARTICLE	IF	CITATIONS
1	Seismic behavior and modeling of high-strength composite concrete-filled steel tube (CFT) beam–columns. Journal of Constructional Steel Research, 2002, 58, 725-758.	3.9	228
2	Experimental Behavior of High Strength Square Concrete-Filled Steel Tube Beam-Columns. Journal of Structural Engineering, 2002, 128, 309-318.	3.4	164
3	Seismic Behavior and Design of High-Strength Square Concrete-Filled Steel Tube Beam Columns. Journal of Structural Engineering, 2004, 130, 169-179.	3.4	143
4	Effect of shear connectors on local buckling and composite action in steel concrete composite walls. Nuclear Engineering and Design, 2014, 269, 231-239.	1.7	137
5	Analytical modeling of the standard fire behavior of loaded CFT columns. Journal of Constructional Steel Research, 2009, 65, 54-69.	3.9	132
6	Steel-plate composite (SC) walls for safety related nuclear facilities: Design for in-plane forces and out-of-plane moments. Nuclear Engineering and Design, 2014, 269, 240-249.	1.7	127
7	Fire induced progressive collapse of steel building structures: The role of interior gravity columns. Engineering Structures, 2014, 58, 129-140.	5.3	111
8	Noncompact and slender rectangular CFT members: Experimental database, analysis, and design. Journal of Constructional Steel Research, 2014, 101, 455-468.	3.9	88
9	Steel-plate composite walls: Experimental database and design for out-of-plane shear. Journal of Constructional Steel Research, 2014, 100, 197-210.	3.9	82
10	Design of composite SC walls to prevent perforation from missile impact. International Journal of Impact Engineering, 2015, 75, 75-87.	5.0	80
11	Cyclic In-Plane Shear Behavior of Double-Skin Composite Walls in High-Rise Buildings. Journal of Structural Engineering, 2017, 143, .	3.4	78
12	Noncompact and slender circular CFT members: Experimental database, analysis, and design. Journal of Constructional Steel Research, 2015, 106, 220-233.	3.9	77
13	In-Plane Seismic Behavior of Rectangular Steel-Plate Composite Wall Piers. Journal of Structural Engineering, 2015, 141, .	3.4	77
14	Steel-plate composite (SC) walls: In-plane shear behavior, database, and design. Journal of Constructional Steel Research, 2016, 119, 202-215.	3.9	74
15	Effective stress-strain relationships for analysis of noncompact and slender filled composite (CFT) members. Engineering Structures, 2016, 124, 457-472.	5.3	68
16	Finite element modeling of steel-plate concrete composite wall piers. Engineering Structures, 2015, 100, 369-384.	5.3	62
17	High-Strength Rectangular CFT Members: Database, Modeling, and Design of Short Columns. Journal of Structural Engineering, 2018, 144, .	3.4	58
18	Steel-plate composite (SC) walls: Out-of-plane flexural behavior, database, and design. Journal of Constructional Steel Research, 2015, 108, 46-59.	3.9	56

#	ARTICLE	IF	CITATIONS
19	Analysis and Design of Noncompact and Slender CFT Beam-Columns. Journal of Structural Engineering, 2016, 142, .	3.4	55
20	In-Plane Behavior and Design of Rectangular SC Wall Piers without Boundary Elements. Journal of Structural Engineering, 2016, 142, .	3.4	53
21	Experimental Behavior and Design of High-Strength Circular Concrete-Filled Steel Tube Short Columns. Journal of Structural Engineering, 2020, 146, .	3.4	51
22	Experimental Evaluation of Thin Composite Floor Assemblies under Fire Loading. Journal of Structural Engineering, 2011, 137, 1002-1016.	3.4	45
23	NSO cell damage by high gas velocity sparging in protein-free and cholesterol-free cultures. Biotechnology and Bioengineering, 2008, 101, 751-760.	3.3	44
24	Experimental and numerical investigation of the shear behavior of steel-plate composite (SC) beams without shear reinforcement. Engineering Structures, 2016, 127, 495-509.	5.3	44
25	Modeling the response of composite beam-slab assemblies exposed to fire. Journal of Constructional Steel Research, 2013, 80, 163-173.	3.9	43
26	Fire design of steel columns: Effects of thermal gradients. Journal of Constructional Steel Research, 2014, 93, 107-118.	3.9	43
27	Fire resilience of composite beams with simple connections: Parametric studies and design. Journal of Constructional Steel Research, 2017, 128, 119-135.	3.9	38
28	Experimental Investigation of Composite Beams with Shear Connections Subjected to Fire Loading. Journal of Structural Engineering, 2016, 142, .	3.4	34
29	Static resistance function for steel-plate composite (SC) walls subject to impactive loading. Nuclear Engineering and Design, 2015, 295, 843-859.	1.7	30
30	Concrete-filled steel tube (CFT) truss girders: Experimental tests, analysis, and design. Engineering Structures, 2018, 156, 118-129.	5.3	30
31	Fundamental Behavior of Steel Beam-Columns and Columns under Fire Loading: Experimental Evaluation. Journal of Structural Engineering, 2011, 137, 954-966.	3.4	29
32	Stub Column Behavior of Cold-Formed High-Strength Steel Circular Hollow Sections under Compression. Journal of Structural Engineering, 2020, 146, .	3.4	28
33	Seismic behavior of a containment internal structure consisting of composite SC walls. Nuclear Engineering and Design, 2015, 295, 804-816.	1.7	27
34	Strain-Rate Effect and Constitutive Models for Q550 High-Strength Structural Steel. Journal of Materials Engineering and Performance, 2019, 28, 6626-6637.	2.5	27
35	Experimental and Numerical Studies of Reinforced Concrete Columns Confined by Circular Steel Tubes Exposed to Fire. Journal of Structural Engineering, 2019, 145, .	3.4	27
36	Cyclic Lateral Loading Behavior of Composite Plate Shear Walls/Concrete Filled. Journal of Structural Engineering, 2021, 147, .	3.4	27

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37	Fire behavior of composite beams with simple connections: Benchmarking of numerical models. Journal of Constructional Steel Research, 2015, 111, 112-125.	3.9	26
38	Stability Behavior of Steel Building Structures in Fire Conditions: Role of Composite Floor System with Shear-Tab Connections. Journal of Structural Fire Engineering, 2014, 5, 77-96.	0.8	24
39	Experimental Behavior and Design of Steel Plate Composite-to-Reinforced Concrete Lap Splice Connections. Journal of Structural Engineering, 2017, 143, .	3.4	21
40	Steel modules of composite plate shear walls: Behavior, stability, and design. Thin-Walled Structures, 2019, 145, 106384.	5.3	20
41	Immunoassays to study prevalence of antibody against GB virus C in blood donors. Journal of Virological Methods, 1997, 68, 45-55.	2.1	19
42	Investigation of Cylindrical Steel Tank Damage at Wineries during Earthquakes: Lessons Learned and Mitigation Opportunities. Practice Periodical on Structural Design and Construction, 2016, 21, .	1.3	19
43	Creep-Prediction Models for Concrete-Filled Steel Tube Arch Bridges. Journal of Bridge Engineering, 2017, 22, .	2.9	19
44	Modeling the cyclic behavior of composite plate shear walls/concrete filled (C-PSW/ CF). Journal of Constructional Steel Research, 2021, 184, 106810.	3.9	19
45	Analytical investigation of the effects of dowel misalignment on concrete pavement joint opening behaviour. International Journal of Pavement Engineering, 2009, 10, 49-62.	4.4	18
46	Experimental and Analytical Investigations of Mechanistic Effects of Dowel Misalignment in Jointed Concrete Pavements. Transportation Research Record, 2007, 2037, 12-29.	1.9	17
47	Experimental Behavior and Design of CFT-RC Short Columns Subjected to Concentric Axial Loading. Journal of Structural Engineering, 2017, 143, .	3.4	17
48	Experimental Evaluation of Steel-Plate Composite Walls Subject to Blast Loads. Journal of Structural Engineering, 2018, 144, .	3.4	17
49	Steel-Plate Composite Walls: Local Buckling and Design for Axial Compression. Journal of Structural Engineering, 2020, 146, .	3.4	17
50	Experimental Evaluation of the Fire Performance of Simple Connections. Journal of Structural Engineering, 2017, 143, .	3.4	16
51	Database and Review of Beam-to-Column Connections for Seismic Design of Composite Special Moment Frames. Journal of Structural Engineering, 2019, 145, .	3.4	16
52	Seismic behavior and modeling of concrete partially filled spirally welded pipes (CPF-SWP). Thin-Walled Structures, 2017, 113, 240-252.	5.3	15
53	Seismic design coefficients and factors for coupled composite plate shear walls/concrete filled (CC-PSW/CF). Engineering Structures, 2021, 244, 112766.	5.3	15
54	Evaluation of Incoherent Interface Strength of Solid-State-Bonded Ti64/Stainless Steel Under Dynamic Impact Loading. Jom, 2015, 67, 1694-1703.	1.9	14

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55	Influence of Material Models on Predicting the Fire Behavior of Steel Columns. Fire Technology, 2017, 53, 375-400.	3.0	14
56	Performance-Based Structural Fire Engineering of Steel Building Structures: Design-Basis Compartment Fires. Journal of Structural Engineering, 2019, 145, .	3.4	14
57	Experimental and Numerical Evaluation of the Postfracture Redundancy of a Simple Span Truss Bridge. Journal of Bridge Engineering, 2014, 19, .	2.9	13
58	Flexural behavior and design of steel-plate composite (SC) walls for accident thermal loading. Nuclear Engineering and Design, 2015, 295, 817-828.	1.7	13
59	Behavior and design of steel-plate composite wall-to-wall corner or L-joints. Nuclear Engineering and Design, 2017, 323, 317-328.	1.7	13
60	Seismic Analysis and Performance of High Strength Composite Special Moment Frames (C-SMFs). Structures, 2017, 9, 165-178.	3.6	13
61	Composite beams under fire loading: numerical modeling of behavior. Journal of Structural Fire Engineering, 2016, 7, 142-157.	0.8	12
62	Post-earthquake fire behavior and performance-based fire design of steel moment frame buildings. Journal of Constructional Steel Research, 2021, 177, 106442.	3.9	12
63	Research review: Post-earthquake fire assessment of steel buildings in the United States. Advances in Structural Engineering, 2018, 21, 138-154.	2.4	11
64	Local responses of steel-plate composite walls subjected to impact loads: Intermediate scale tests. Engineering Structures, 2020, 206, 110131.	5.3	11
65	Ultimate shear strength of steel-plate composite (SC) walls with boundary elements. Journal of Constructional Steel Research, 2020, 165, 105810.	3.9	11
66	Flexural Capacity of Composite Beams Subjected to Fire: Fiber-Based Models and Benchmarking. Fire Technology, 2016, 52, 995-1014.	3.0	10
67	Large-scale rotating bending fatigue tests for offshore pipe connections. Experimental Mechanics, 1997, 37, 147-153.	2.0	9
68	Steel Columns Subjected to Thermal Gradients from Fire Loading: Experimental Evaluation. Journal of Structural Engineering, 2016, 142, .	3.4	9
69	Modeling of high-strength composite special moment frames (C-SMFs) for seismic analysis. Journal of Constructional Steel Research, 2017, 138, 526-537.	3.9	9
70	Experimental Resistance and Available Ductility of Steel-Plate Composite Walls in One-Way Bending. Journal of Structural Engineering, 2017, 143, .	3.4	9
71	Experimental Evaluation of Single-Bolted Lap Joints at Elevated Temperatures. Journal of Structural Engineering, 2018, 144, 04017176.	3.4	9
72	Behavior of Steel-Plate Composite Wall Piers under Biaxial Loading. Journal of Structural Engineering, 2019, 145, .	3.4	9

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73	Behavior of Floor Systems under Realistic Fire Loading. , 2009, , .		8
74	Analysis Recommendations for Steel-Composite (SC) Walls of Safety-Related Nuclear Facilities. , 2012, , .		8
75	Seismic behavior and design of a primary shield structure consisting of steel-plate composite (SC) walls. Nuclear Engineering and Design, 2015, 295, 829-842.	1.7	8
76	Effect of Local Damage Caused by Overweight Trucks on the Durability of Steel Bridges. Journal of Performance of Constructed Facilities, 2016, 30, .	2.0	8
77	Reaction Diffusion in Mo-Si System above the Melting Point of Silicon. Defect and Diffusion Forum, 2005, 237-240, 873-878.	0.4	7
78	Predicting the Standard Fire Behavior of Composite Steel Beams. , 2011, , .		7
79	Assessment of Post-Earthquake Fire Behavior of a Steel MRF Building in a Low Seismic Region. International Journal of Steel Structures, 2018, 18, 1470-1481.	1.3	7
80	Axial force-biaxial moment-vector shear (P-M-V) interaction for steel-plate composite (SC) wall piers. Nuclear Engineering and Design, 2019, 349, 162-173.	1.7	7
81	Steel-Plate Composite Wall-to-Wall T-Joints: Joint Shear Strength. Journal of Structural Engineering, 2019, 145, 04019054.	3.4	7
82	A study on the resistance of SC walls subjected to missile impact using large-scale impact tests. International Journal of Impact Engineering, 2020, 139, 103507.	5.0	7
83	Experimental Investigation of Effects of Dowel Misalignment on Joint Opening Behavior in Rigid Pavements. Transportation Research Record, 2006, 1947, 15-27.	1.9	7
84	Direct shear strength of rebar-coupler anchor systems for steel-plate composite (SC) walls. International Journal of Steel Structures, 2016, 16, 1397-1409.	1.3	6
85	Non-linear analysis models for Composite Plate Shear Walls-Concrete Filled (C-PSW/CF). Journal of Constructional Steel Research, 2021, 184, 106803.	3.9	6
86	Fundamental behavior of CFT beam-columns under fire loading. Steel and Composite Structures, 2013, 15, 679-703.	1.3	6
87	Capacity Design of Coupled Composite Plate Shear Wallâ€œConcrete-Filled System. Journal of Structural Engineering, 2022, 148, .	3.4	6
88	Structural Properties of Steels Subjected to Multiple Cycles of Damage Followed by Heating Repair. Journal of Structural Engineering, 2007, 133, 283-296.	3.4	5
89	Missile Impact on SC Walls: Global Response. , 2014, , .		5
90	Summary of Blast Tests on Steel-Plate Reinforced Concrete Walls. , 2015, , .		5

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91	Steel-Plate Composite Walls Subjected to Missile Impact: Experimental Evaluation of Local Damage. Journal of Structural Engineering, 2021, 147, .	3.4	5
92	Predicting Fire Behavior of Composite CFT Columns Using Fundamental Section Behavior. Journal of ASTM International, 2010, 7, 1-23.	0.2	5
93	Enhanced kinetic extraction of parvovirus B19 structural proteins. Biotechnology and Bioengineering, 2002, 80, 250-256.	3.3	4
94	Effects of Multiple Damage-Heat Straightening Repairs on Steel Beams. Transportation Research Record, 2007, 2028, 67-77.	1.9	4
95	Behavior of Steel Columns under Fire Loading. , 2011, , .		4
96	Preliminary Study of Blast Response of Steel Plate-Reinforced Concrete Walls. , 2014, , .		4
97	Multi-hazard investigation and testing of steel-plate composite (SC) wall piers: Seismic and thermal loads. Nuclear Engineering and Design, 2019, 348, 121-130.	1.7	4
98	An experimental investigation of the effects of out-of-plane loading on the in-plane seismic response of SC wall piers. Engineering Structures, 2019, 190, 380-388.	5.3	4
99	Experimental Evaluation of Composite Floor Assemblies under Fire Loading. , 2010, , .		3
100	Options for the Anchorage of Composite SC Walls to a Concrete Basemat. , 2016, , .		3
101	An Overview of Missile Impact Tests on Steel-Plate Composite (SC) Walls. , 2017, , .		3
102	A path independent energy integral approach for analytical fracture strength of steel-concrete structures with an account of interface effects. Engineering Fracture Mechanics, 2018, 204, 246-267.	4.3	3
103	Seismic performance of an idealized steel-plate composite (SC) modular structure subjected to accident thermal loading. Nuclear Engineering and Design, 2019, 352, 110133.	1.7	3
104	Modular steel-plate composite (SC) wall steelbricks: Experimental and numerical evaluations. Nuclear Engineering and Design, 2019, 350, 224-233.	1.7	3
105	Steel-Plate Composite Walls with Different Types of Out-of-Plane Shear Reinforcement: Behavior, Analysis, and Design. Journal of Structural Engineering, 2021, 147, 04020329.	3.4	3
106	Shear strength of reinforced concrete beams with T-headed bars for safety-related nuclear structures. Engineering Structures, 2021, 230, 111705.	5.3	3
107	Load-Rating Procedures for Railroad Flatcars Repurposed as Sustainable Highway Bridges. Journal of Bridge Engineering, 2016, 21, 04016078.	2.9	3
108	Analysis and behavior of high-strength rectangular CFT columns. , 0, , .		3

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109	Design of Modular Composite Walls Subjected to Thermal and Mechanical Loading. , 2009, , .		2
110	Stability Behavior of Steel Building Structures with Perimeter MRFs under Fire Loading Effects. , 2009, , .		2
111	Experimental Evaluation of Composite Floor Assemblies under Fire Loading. , 2011, , .		2
112	Fire Induced Progressive Collapse of Steel Building Structures. , 2012, , .		2
113	Effects of Realistic Heat-Straightening Repair on Damaged Steel Beams. Transportation Research Record, 2014, 2406, 68-76.	1.9	2
114	Impact Assessment of SC Walls Using Idealized SDOF and TDOF Models. , 2015, , .		2
115	Retrofit of Steel Columns: Parametric Studies and Design. Journal of Bridge Engineering, 2016, 21, .	2.9	2
116	Experimental and analytical evaluation of the redundancy of repurposed fracture-critical railroad-flatcars. Journal of Constructional Steel Research, 2019, 159, 288-300.	3.9	2
117	Local buckling of steel faceplates anchored to concrete infill in C-PSW/CF. Thin-Walled Structures, 2021, 167, 108230.	5.3	2
118	Effects of Accident Thermal Loading on Shear Behavior of Reinforced Concrete Members. ACI Structural Journal, 2019, 116, .	0.2	2
119	Experimental Testing of Tension-Loaded Deformed Anchors in Concrete. ACI Structural Journal, 2020, 117, .	0.2	2
120	Closure to “Experimental Behavior of High Strength Square Concrete-Filled Steel Tube Beam-Columns” by Amit H. Varma, James M. Ricles, Richard Sause, and Le-We Lu. Journal of Structural Engineering, 2003, 129, 1286-1286.	3.4	1
121	Performance of Steel Bridge Girders Subjected to Damage and Heat Straightening Repair. , 2007, , .		1
122	Fundamental Behavior of Composite CFT Members under Standard Fire Loading. , 2007, , .		1
123	Stability Behavior and Design of Steel Columns under Fire Loading. , 2009, , .		1
124	Experimental Investigation of Steel Beam-Columns under Fire Loading. , 2010, , .		1
125	Numerical and Experimental Investigation of the In-Plane Behavior of Rectangular Steel-Plate Composite Walls. , 2014, , .		1
126	Advanced Fire Testing of a Composite Beam with Shear Tab Connections. , 2014, , .		1



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127	Consideration of Shear Stud Slip in the Design of Partially Composite Beams. , 2015, , .		1
128	Outline of Specification for Composite SC Walls in Nuclear Facilities. , 2015, , .		1
129	P-M Interaction Equations for Design of CFT Beam-Columns. , 2015, , .		1
130	Section Characterization of Wide-Flange Steel Sections Subjected to Combined Thermal and Mechanical Loading. Journal of Structural Engineering, 2015, 141, 04014162.	3.4	1
131	Rectangular SC Wall Piers: Summary of Seismic Behavior and Design. , 2015, , .		1
132	Sustainability and Structural Fire Engineering. , 2015, , .		1
133	Retrofit of Built-Up Steel Columns: Modeling and Fundamental Behavior. Journal of Bridge Engineering, 2016, 21, 04015054.	2.9	1
134	Design of Wall Structures for In-Plane and Out-of-Plane Forces: An Exploratory Evaluation. , 2017, , .		1
135	Effects of Imperfections in Heat Straightening Repair of Steel Beam Bridges. Transportation Research Record, 2018, 2672, 165-176.	1.9	1
136	Experimental Investigations of the Effects of Multiple Heat Straightening Repair on the Structural Properties of Bridge Steels. Transportation Research Record, 2005, 1907, 67-77.	1.9	1
137	Seismic Performance of High Strength CFT Beam-Columns. , 2000, , 1.		0
138	Evaluation of Prestressed Concrete I-Girder Bridge Design Software with NCHRP Process 12-50. Transportation Research Record, 2009, 2131, 34-46.	1.9	0
139	Design of SC Walls and Connections in Nuclear Facilities. , 2016, , .		0
140	Outline of Specification for Composite SC Walls in Nuclear Facilities. , 2016, , .		0
141	Experimentally-Validated Analysis Methods for Steel-Plate Composite (SC) Walls Subjected to Blast and Impact Loads. , 2016, , .		0
142	Preliminary Investigation of Local Failure Modes in Steel-Plate Composite Walls Subjected to Missile Impact. , 2017, , .		0
143	Advanced Analysis of Steel-Frame Buildings for Full Story Fires. , 2017, , .		0
144	Reliability Based Design Optimization of Primary Shield Structure Consisting of Steel-Plate Composite (SC) Walls Under Seismic Load. , 2017, , .		0

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145	Closure to “Experimental Evaluation of Single-Bolted Lap Joints at Elevated Temperatures” by Erica C. Fischer, Amit H. Varma, and Qiaqia Zhu. Journal of Structural Engineering, 2018, 144, 07018011.	3.4	0
146	Closure to “Experimental Evaluation of the Fire Performance of Simple Connections” by Erica C. Fischer, Kristi L. Selden, and Amit H. Varma. Journal of Structural Engineering, 2018, 144, 07018002.	3.4	0
147	Analysis and Design of One-Way Steel-Plate Composite Walls for Far-Field Blast Effects. Journal of Structural Engineering, 2021, 147, 04020288.	3.4	0
148	Influence of Bridge Fires on the Properties of Concrete and Steel Components. Transportation Research Record, 0, , 036119812110363.	1.9	0
149	Influence of connection capacity on the behavior of floor systems under realistic fire loading. , 2009, , .		0
150	Fatigue Testing and Finite Element Modeling of Arm-to-Pole Connections in Steel Transmission Pole Structures. , 2018, , .		0
151	Flexural fatigue behavior of threaded connections for large diameter pipes. Experimental Mechanics, 2002, 42, 1-7.	2.0	0
152	SC Wall-to-RC Basemat Over-Strength Connection: Behavior and Design. CivilEng, 2022, 3, 503-524.	1.4	0