

# Dimitrios Vamvatsikos

## List of Publications by Year in descending order

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Version: 2024-02-01

108  
papers

6,733  
citations

136740

32  
h-index

62479

80  
g-index

111  
all docs

111  
docs citations

111  
times ranked

2587  
citing authors

#	ARTICLE	IF	CITATIONS
1	Incremental dynamic analysis. Earthquake Engineering and Structural Dynamics, 2002, 31, 491-514.	2.5	3,029
2	Applied Incremental Dynamic Analysis. Earthquake Spectra, 2004, 20, 523-553.	1.6	461
3	Developing efficient scalar and vector intensity measures for IDA capacity estimation by incorporating elastic spectral shape information. Earthquake Engineering and Structural Dynamics, 2005, 34, 1573-1600.	2.5	212
4	Direct estimation of the seismic demand and capacity of oscillators with multi-linear static pushovers through IDA. Earthquake Engineering and Structural Dynamics, 2006, 35, 1097-1117.	2.5	205
5	Direct Estimation of Seismic Demand and Capacity of Multidegree-of-Freedom Systems through Incremental Dynamic Analysis of Single Degree of Freedom Approximation. Journal of Structural Engineering, 2005, 131, 589-599.	1.7	173
6	Conditional spectrum-based ground motion record selection using average spectral acceleration. Earthquake Engineering and Structural Dynamics, 2017, 46, 1667-1685.	2.5	163
7	Intensity measure selection for vulnerability studies of building classes. Earthquake Engineering and Structural Dynamics, 2015, 44, 2677-2694.	2.5	147
8	Incremental dynamic analysis for estimating seismic performance sensitivity and uncertainty. Earthquake Engineering and Structural Dynamics, 2010, 39, 141-163.	2.5	127
9	Current Challenges and Future Trends in Analytical Fragility and Vulnerability Modeling. Earthquake Spectra, 2019, 35, 1927-1952.	1.6	113
10	Seismic Fragility Functions via Nonlinear Response History Analysis. Journal of Structural Engineering, 2018, 144, .	1.7	112
11	Vector and Scalar IMs in Structural Response Estimation, Part II: Building Demand Assessment. Earthquake Spectra, 2016, 32, 1525-1543.	1.6	99
12	Derivation of new SAC/FEMA performance evaluation solutions with second-order hazard approximation. Earthquake Engineering and Structural Dynamics, 2013, 42, 1171-1188.	2.5	94
13	SPO2FRAG: software for seismic fragility assessment based on static pushover. Bulletin of Earthquake Engineering, 2017, 15, 4399-4425.	2.3	83
14	Pulse-like versus non-pulse-like ground motion records: Spectral shape comparisons and record selection strategies. Earthquake Engineering and Structural Dynamics, 2019, 48, 46-64.	2.5	73
15	Vector and Scalar IMs in Structural Response Estimation, Part I: Hazard Analysis. Earthquake Spectra, 2016, 32, 1507-1524.	1.6	67
16	Evaluation of the influence of vertical irregularities on the seismic performance of a nine-storey steel frame. Earthquake Engineering and Structural Dynamics, 2006, 35, 1489-1509.	2.5	66
17	Seismic performance of a steel moment-resisting frame subject to strength and ductility uncertainty. Engineering Structures, 2014, 78, 69-77.	2.6	65
18	Site dependence and record selection schemes for building fragility and regional loss assessment. Earthquake Engineering and Structural Dynamics, 2017, 46, 1625-1643.	2.5	62

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19	Near-optimal piecewise linear fits of static pushover capacity curves for equivalent SDOF analysis. Earthquake Engineering and Structural Dynamics, 2013, 42, 523-543.	2.5	56
20	Two frugal options to assess class fragility and seismic safety for low-rise reinforced concrete school buildings in Southern Italy. Bulletin of Earthquake Engineering, 2021, 19, 1415-1439.	2.3	54
21	Seismic assessment of structures and lifelines. Journal of Sound and Vibration, 2015, 334, 29-56.	2.1	52
22	Seismic risk assessment of liquid storage tanks via a nonlinear surrogate model. Earthquake Engineering and Structural Dynamics, 2017, 46, 2851-2868.	2.5	48
23	Performing incremental dynamic analysis in parallel. Computers and Structures, 2011, 89, 170-180.	2.4	42
24	Application of Nonlinear Static Procedures for the Seismic Assessment of Regular RC Moment Frame Buildings. Earthquake Spectra, 2014, 30, 767-794.	1.6	42
25	Seismic Performance Uncertainty Estimation via IDA with Progressive Accelerogram-Wise Latin Hypercube Sampling. Journal of Structural Engineering, 2014, 140, .	1.7	41
26	Implications of Intensity Measure Selection for Seismic Loss Assessment of 3-D Buildings. Earthquake Spectra, 2016, 32, 2167-2189.	1.6	41
27	Performance-based seismic design via yield frequency spectra. Earthquake Engineering and Structural Dynamics, 2016, 45, 1759-1778.	2.5	39
28	Surrogate Modeling for the Seismic Performance Assessment of Liquid Storage Tanks. Journal of Structural Engineering, 2017, 143, .	1.7	38
29	Evaluation of Seismic Acceleration Demands on Building Nonstructural Elements. Journal of Structural Engineering, 2020, 146, .	1.7	38
30	Reliability Assessment of Urban Water Distribution Networks Under Seismic Loads. Water Resources Management, 2013, 27, 3739-3764.	1.9	36
31	Probabilistic economic seismic loss estimation in steel buildings using post-tensioned moment-resisting frames and viscous dampers. Earthquake Engineering and Structural Dynamics, 2016, 45, 1725-1741.	2.5	35
32	Simplified estimation of seismic risk for reinforced concrete buildings with consideration of corrosion over time. Bulletin of Earthquake Engineering, 2011, 9, 1137-1155.	2.3	34
33	Fast performance uncertainty estimation via pushover and approximate IDA. Earthquake Engineering and Structural Dynamics, 2010, 39, 683-703.	2.5	32
34	Equivalent constant rates for performance-based seismic assessment of ageing structures. Structural Safety, 2011, 33, 8-18.	2.8	32
35	Seismic intensity measures for above-ground liquid storage tanks. Earthquake Engineering and Structural Dynamics, 2018, 47, 1844-1863.	2.5	31
36	Accurate Application and Second-Order Improvement of SAC/FEMA Probabilistic Formats for Seismic Performance Assessment. Journal of Structural Engineering, 2014, 140, .	1.7	30

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37	Ground motion records for seismic performance assessment: To rotate or not to rotate?. Earthquake Engineering and Structural Dynamics, 2018, 47, 2410-2425.	2.5	30
38	A risk-consistent approach to determine EN1998 behaviour factors for lateral load resisting systems. Soil Dynamics and Earthquake Engineering, 2020, 131, 106008.	1.9	30
39	A response spectrum method for peak floor acceleration demands in earthquake excited structures. Probabilistic Engineering Mechanics, 2016, 46, 94-106.	1.3	26
40	Performance-based assessment of protection measures for buried pipes at strike-slip fault crossings. Soil Dynamics and Earthquake Engineering, 2017, 101, 1-11.	1.9	26
41	The effect of damping on floor spectral accelerations as inferred from instrumented buildings. Bulletin of Earthquake Engineering, 2020, 18, 2149-2164.	2.3	23
42	Development and Application of FEMA P-58 Compatible Story Loss Functions. Earthquake Spectra, 2019, 35, 95-112.	1.6	22
43	Simplified fragility-based risk analysis for impulse governed blast loading scenarios. Engineering Structures, 2016, 117, 457-469.	2.6	21
44	Performance-Based Seismic Design: Avant-Garde and Code-Compatible Approaches. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2016, 2, .	1.1	21
45	Dynamic analysis of single-degree-of-freedom systems (DYANAS): A graphical user interface for OpenSees. Engineering Structures, 2018, 177, 395-408.	2.6	21
46	Performance Assessment of Buried Pipelines at Fault Crossings. Earthquake Spectra, 2017, 33, 201-218.	1.6	20
47	Analytical modelling of near-source pulse-like seismic demand for multi-linear backbone oscillators. Earthquake Engineering and Structural Dynamics, 2016, 45, 1797-1815.	2.5	19
48	Safety factor for structural elements subjected to impulsive blast loads. International Journal of Impact Engineering, 2017, 106, 249-258.	2.4	19
49	The Hysteretic Energy as a Performance Measure in Analytical Studies. Earthquake Spectra, 2018, 34, 719-739.	1.6	19
50	Multi-level conditional spectrum-based record selection for IDA. Earthquake Spectra, 2020, 36, 1976-1994.	1.6	19
51	Conditional spectrum bidirectional record selection for risk assessment of 3D structures using scalar and vector IMs. Earthquake Engineering and Structural Dynamics, 2019, 48, 1066-1082.	2.5	18
52	Strength reduction factors for the design of light nonstructural elements in buildings. Earthquake Engineering and Structural Dynamics, 2020, 49, 1329-1343.	2.5	18
53	Numerical implementation of the integral-transform solution to Lamb's point-load problem. Computational Mechanics, 1999, 24, 90-99.	2.2	16
54	Seismic Performance Evaluation of Liquid Storage Tanks Using Nonlinear Static Procedures. Journal of Pressure Vessel Technology, Transactions of the ASME, 2019, 141, .	0.4	16

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55	Onshore wind farm siting prioritization based on investment profitability for Greece. Renewable Energy, 2020, 146, 2827-2839.	4.3	16
56	Rocking incremental dynamic analysis. Earthquake Engineering and Structural Dynamics, 2022, 51, 688-703.	2.5	15
57	Seismic risk and loss estimation for the building stock in Isfahan: part II "hazard analysis and risk assessment. Bulletin of Earthquake Engineering, 2021, 19, 1739-1763.	2.3	14
58	Seismic risk and loss estimation for the building stock in Isfahan. Part I: exposure and vulnerability. Bulletin of Earthquake Engineering, 2021, 19, 1709-1737.	2.3	13
59	Seismic Fragility Assessment of Steel Liquid Storage Tanks. , 2015, , .		12
60	Methodology for failure mode prediction of onshore buried steel pipelines subjected to reverse fault rupture. Soil Dynamics and Earthquake Engineering, 2020, 135, 106116.	1.9	12
61	Conditional spectrum record selection faithful to causative earthquake parameter distributions. Earthquake Engineering and Structural Dynamics, 2021, 50, 2653-2671.	2.5	12
62	Seismic response distribution expressions for on-ground rigid rocking blocks under ordinary ground motions. Earthquake Engineering and Structural Dynamics, 2021, 50, 3311-3331.	2.5	12
63	Simplified Mechanical Model to Estimate the Seismic Vulnerability of Heritage Unreinforced Masonry Buildings. Journal of Earthquake Engineering, 2016, 20, 298-325.	1.4	11
64	Model Type Effects on the Estimated Seismic Response of a 20-Story Steel Moment Resisting Frame. Journal of Structural Engineering, 2021, 147, .	1.7	11
65	Yield frequency spectra and seismic design of code-compatible RC structures: an illustrative example. Earthquake Engineering and Structural Dynamics, 2017, 46, 1727-1745.	2.5	10
66	Macro-characteristics and taxonomy of steel racking systems for seismic vulnerability assessment. Bulletin of Earthquake Engineering, 2022, 20, 2695-2718.	2.3	9
67	The influence of the vertical component of ground motion on the probabilistic treatment of the rocking response of free-standing blocks. Earthquake Engineering and Structural Dynamics, 2022, 51, 1874-1894.	2.5	9
68	Correlation of spectral acceleration values of vertical and horizontal ground motion pairs. Earthquake Spectra, 2020, 36, 2112-2128.	1.6	8
69	Simplified Modeling for the Seismic Performance Assessment of Automated Rack-Supported Warehouses. Journal of Structural Engineering, 2021, 147, .	1.7	8
70	Mixed probabilistic seismic demand models for fragility assessment. Bulletin of Earthquake Engineering, 2021, 19, 6397-6421.	2.3	6
71	SPO2FRAG V1.0: SOFTWARE FOR PUSHOVER-BASED DERIVATION OF SEISMIC FRAGILITY CURVES. , 2016, , .		6
72	Probabilistic Assessment of Innovative Mitigating Measures for Buried Steel Pipeline "Fault Crossing. , 2015, , .		5

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73	Seismic and Vibration Performance Rehabilitation for an Industrial Steel Building. Practice Periodical on Structural Design and Construction, 2020, 25, .	0.7	5
74	A simplified approach for including the incidence angle effect in seismic risk assessment. Earthquake Engineering and Structural Dynamics, 2022, 51, 191-212.	2.5	5
75	I.11.00: Innovative systems for seismic resistance: The INNOSEIS Project. Ce/Papers, 2017, 1, 3375-3384.	0.1	4
76	I.11.47: A risk-consistent approach to determine behavior factors for innovative steel lateral load resisting systems. Ce/Papers, 2017, 1, 3434-3443.	0.1	4
77	Conditional spectrum based ground motion record selection using average spectral acceleration. Earthquake Engineering and Structural Dynamics, 2018, 47, 265-265.	2.5	4
78	A Seismic Design Procedure for Different Performance Objectives for Post-Tensioned Walls. Journal of Earthquake Engineering, 2022, 26, 475-492.	1.4	4
79	Seismic assessment approaches for mass-dominant sliding contents: The case of storage racks. Earthquake Engineering and Structural Dynamics, 2022, 51, 812-831.	2.5	4
80	Uniform risk spectra for rocking structures. Earthquake Engineering and Structural Dynamics, 2022, 51, 2610-2626.	2.5	4
81	A risk-based evaluation of direct displacement-based design. Bulletin of Earthquake Engineering, 2022, 20, 6611-6633.	2.3	4
82	Applicability of Nonlinear Static Procedures to RC Moment-Resisting Frames. , 2011, , .		3
83	Precast Beam Bridges with a Buffer-“Gap”Elastomeric Bearings System: Uncertainty in Design Parameters and Randomness in Ground Records. Journal of Bridge Engineering, 2019, 24, .	1.4	3
84	Stability of Single-Bolted Thin-Walled Steel Angle Members with Stochastic Imperfections. Journal of Structural Engineering, 2021, 147, .	1.7	3
85	Analytic Fragility and Limit States [P(EDP   IM)]: Nonlinear Dynamic Procedures. , 2015, , 87-94.		3
86	Incremental Dynamic Analysis. , 2014, , 1-8.		3
87	A NEXT GENERATION SCALAR INTENSITY MEASURE FOR ANALYTICAL VULNERABILITY STUDIES. , 2015, , .		2
88	SURROGATE MODELLING OF LIQUID STORAGE TANKS FOR SEISMIC PERFORMANCE DESIGN AND ASSESSMENT. , 2015, , .		2
89	DEVELOPMENT OF FEMA P-58 COMPATIBLE STORY LOSS FUNCTIONS: STEEL OFFICE BUILDINGS IN HIGH SEISMICITY REGIONS. , 2017, , .		2
90	WIND PERFORMANCE ASSESMENT OF TELECOMMUNICATION TOWERS: A CASE STUDY IN GREECE. , 2019, , .		2

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91	Estimating seismic performance uncertainty using IDA with progressive accelerogram-wise latin hypercube sampling. , 2011, , 2704-2710.		2
92	NEAR -SOURCE PULSE-LIKE SEISMIC DEMAND FOR MULTI-LINEAR BACKBONE OSCILLATORS. , 2015, , .		2
93	Preface to the Special Issue: The evolution of fragility and vulnerability. The origin story of a preface. Bulletin of Earthquake Engineering, 0, , 1.	2.3	2
94	Some Thoughts on Methods to Compare the Seismic Performance of Alternate Structural Designs. , 2011, , 77-98.		1
95	Improving Static Pushover Analysis by Optimal Bilinear Fitting of Capacity Curves. Computational Methods in Applied Sciences (Springer), 2013, , 273-295.	0.1	1
96	Incremental dynamic analysis. , 2002, 31, 491.		1
97	Direct estimation of the seismic demand and capacity of oscillators with multi-linear static pushovers through IDA. , 2006, 35, 1097.		1
98	PROBABILISTIC FATIGUE ANALYSIS OF OFFSHORE WIND TURBINES. , 2015, , .		1
99	INFLUENCE OF ROTATED GROUND MOTION COMPONENTS ON THE RESPONSE DISTRIBUTION OF INELASTIC OSCILLATORS. , 2015, , .		1
100	Incremental Dynamic Analysis. , 2015, , 1165-1171.		0
101	Static Versus Dynamic Methods of Analysis for Estimating Seismic Performance. , 2011, , 99-133.		0
102	Simplified Estimation of Seismic Risk for Buildings with Consideration of Structural Ageing. , 2011, , 211-231.		0
103	PROBABILISTIC ASSESSMENT OF PIPELINE - FAULT CROSSING. , 2015, , .		0
104	Analytic Fragility and Limit States [P(EDP   IM)]: Nonlinear Dynamic Procedures. , 2015, , 1-8.		0
105	SIMPLIFIED PREDICTION OF PEAK FLOOR ACCELERATIONS IN INELASTIC WALL STRUCTURES. , 2017, , .		0
106	Q-FACTOR VERIFICATION OF A 6-STOREY CONCENTRICALLY BRACED FRAME VIA THE INNOSEIS RISK-BASED APPROACH. , 2017, , .		0
107	SIMPLIFIED MODELS FOR THE NONLINEAR ANALYSIS OF ARSW STRUCTURES UNDER SEISMIC LOADING. , 2019, , .		0
108	A holistic monitoring scheme for road infrastructures. , 2022, , .		0