Yongchao Yang

List of Publications by Year
in descending order

52	1,913	304602	254106
papers	citations	22	43
		h-index	g-index

53	53	53	1100
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Blind identification of full-field vibration modes from video measurements with phase-based video motion magnification. Mechanical Systems and Signal Processing, 2017, 85, 567-590.	4.4	273
2	Output-only modal identification with limited sensors using sparse component analysis. Journal of Sound and Vibration, 2013, 332, 4741-4765.	2.1	144
3	Blind identification of damage in time-varying systems using independent component analysis with wavelet transform. Mechanical Systems and Signal Processing, 2014, 47, 3-20.	4.4	113
4	CNN-LSTM deep learning architecture for computer vision-based modal frequency detection. Mechanical Systems and Signal Processing, 2020, 144, 106885.	4.4	112
5	Time-Frequency Blind Source Separation Using Independent Component Analysis for Output-Only Modal Identification of Highly Damped Structures. Journal of Structural Engineering, 2013, 139, 1780-1793.	1.7	109
6	Blind identification of full-field vibration modes of output-only structures from uniformly-sampled, possibly temporally-aliased (sub-Nyquist), video measurements. Journal of Sound and Vibration, 2017, 390, 232-256.	2.1	96
7	Structural damage identification via a combination of blind feature extraction and sparse representation classification. Mechanical Systems and Signal Processing, 2014, 45, 1-23.	4.4	93
8	Modeling and harnessing sparse and low-rank data structure: a new paradigm for structural dynamics, identification, damage detection, and health monitoring. Structural Control and Health Monitoring, 2017, 24, e1851.	1.9	88
9	Output-only modal identification by compressed sensing: Non-uniform low-rate random sampling. Mechanical Systems and Signal Processing, 2015, 56-57, 15-34.	4.4	86
10	Harnessing data structure for recovery of randomly missing structural vibration responses time history: Sparse representation versus low-rank structure. Mechanical Systems and Signal Processing, 2016, 74, 165-182.	4.4	77
11	Blind modal identification of output‐only structures in time‐domain based on complexity pursuit. Earthquake Engineering and Structural Dynamics, 2013, 42, 1885-1905.	2.5	73
12	Real-Time Output-Only Identification of Time-Varying Cable Tension from Accelerations via Complexity Pursuit. Journal of Structural Engineering, 2016, 142, .	1.7	68
13	Reference-free detection of minute, non-visible, damage using full-field, high-resolution mode shapes output-only identified from digital videos of structures. Structural Health Monitoring, 2018, 17, 514-531.	4.3	50
14	Blind denoising of structural vibration responses with outliers via principal component pursuit. Structural Control and Health Monitoring, 2014, 21, 962-978.	1.9	47
15	Robust data transmission and recovery of images by compressed sensing for structural health diagnosis. Structural Control and Health Monitoring, 2017, 24, e1856.	1.9	45
16	Dynamic Imaging: Real-Time Detection of Local Structural Damage with Blind Separation of Low-Rank Background and Sparse Innovation. Journal of Structural Engineering, 2016, 142, .	1.7	39
17	Estimation of full‐field, full‐order experimental modal model of cable vibration from digital video measurements with physics‐guided unsupervised machine learning and computer vision. Structural Control and Health Monitoring, 2019, 26, e2358.	1.9	30
18	Blind, simultaneous identification of full-field vibration modes and large rigid-body motion of output-only structures from digital video measurements. Engineering Structures, 2020, 207, 110183.	2.6	28

#	Article	IF	Citations
19	Full-field, high-spatial-resolution detection of local structural damage from low-resolution random strain field measurements. Journal of Sound and Vibration, 2017, 399, 75-85.	2.1	27
20	Data Compression of Structural Seismic Responses via Principled Independent Component Analysis. Journal of Structural Engineering, 2014, 140, .	1.7	26
21	Computer vision-based real-time cable tension estimation algorithm using complexity pursuit from video and its application in Fred-Hartman cable-stayed bridge. Structural Control and Health Monitoring, 2022, 29, .	1.9	25
22	Extracting full-field subpixel structural displacements from videos via deep learning. Journal of Sound and Vibration, 2021, 505, 116142.	2.1	24
23	Noncontact super-resolution guided wave array imaging of subwavelength defects using a multiscale deep learning approach. Structural Health Monitoring, 2021, 20, 1904-1923.	4.3	21
24	Efficient Full-Field Vibration Measurements and Operational Modal Analysis Using Neuromorphic Event-Based Imaging. Journal of Engineering Mechanics - ASCE, 2018, 144, .	1.6	19
25	Nonnegative matrix factorization-based blind source separation for full-field and high-resolution modal identification from video. Journal of Sound and Vibration, 2020, 487, 115586.	2.1	18
26	Data-driven identification of nonlinear normal modes via physics-integrated deep learning. Nonlinear Dynamics, 2021, 106, 3231-3246.	2.7	17
27	Data compression of very large-scale structural seismic and typhoon responses by low-rank representation with matrix reshape. Structural Control and Health Monitoring, 2015, 22, 1119-1131.	1.9	16
28	Estimation of full-field dynamic strains from digital video measurements of output-only beam structures by video motion processing and modal superposition. Structural Control and Health Monitoring, 2019, 26, e2408.	1.9	15
29	Sparse and Random Sampling Techniques for High-Resolution, Full-Field, BSS-Based Structural Dynamics Identification from Video. Sensors, 2020, 20, 3526.	2.1	15
30	Blind modal identification of output-only non-proportionally-damped structures by time-frequency complex independent component analysis. Smart Structures and Systems, 2015, 15, 81-97.	1.9	15
31	Real-time cable tension estimation from acceleration measurements using wireless sensors with packet data losses: analytics with compressive sensing and sparse component analysis. Journal of Civil Structural Health Monitoring, 2022, 12, 797-815.	2.0	13
32	Automated Extraction of Mode Shapes Using Motion Magnified Video and Blind Source Separation. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 355-360.	0.3	11
33	YAP/TAZ Related BioMechano Signal Transduction and Cancer Metastasis. Frontiers in Cell and Developmental Biology, 2019, 7, 199.	1.8	11
34	Hierarchical deep learning for data-driven identification of reduced-order models of nonlinear dynamical systems. Nonlinear Dynamics, 2021, 105, 3409-3422.	2.7	11
35	A framework for the identification of full-field structural dynamics using sequences of images in the presence of non-ideal operating conditions. Journal of Intelligent Material Systems and Structures, 2018, 29, 3456-3481.	1.4	10
36	3D structural vibration identification from dynamic point clouds. Mechanical Systems and Signal Processing, 2022, 166, 108352.	4.4	10

#	Article	IF	Citations
37	Spatiotemporal video-domain high-fidelity simulation and realistic visualization of full-field dynamic responses of structures by a combination of high-spatial-resolution modal model and video motion manipulations. Structural Control and Health Monitoring, 2018, 25, e2193.	1.9	9
38	Affinity propagation clustering of full-field, high-spatial-dimensional measurements for robust output-only modal identification: A proof-of-concept study. Journal of Sound and Vibration, 2020, 483, 115473.	2.1	8
39	Extraction of Full-Field Structural Dynamics from Digital Video Measurements in Presence of Large Rigid Body Motion. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 91-95.	0.3	4
40	Establishment of Full-Field, Full-Order Dynamic Model of Cable Vibration by Video Motion Manipulations. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 127-133.	0.3	4
41	Accelerated noncontact guided wave array imaging via sparse array data reconstruction. Ultrasonics, 2022, 121, 106672.	2.1	4
42	Full-field Structural Dynamics by Video Motion Manipulation. , 2017, , .		3
43	Efficient Full-Field Operational Modal Analysis Using Neuromorphic Event-Based Imaging. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 97-103.	0.3	3
44	Identification of Full-Field Dynamic Loads on Structures Using Computer Vision and Unsupervised Machine Learning. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 41-48.	0.3	2
45	Blind Identification of Output-Only Systems and Structural Damage via Sparse Representations. , 2015, , 280-298.		1
46	Light Field Imaging of Three-Dimensional Structural Dynamics. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 101-108.	0.3	0
47	Full-Field Mode Shape Identification of Vibrating Structures from Compressively Sampled Video. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 93-99.	0.3	0
48	Imager-Based Characterization of Viscoelastic Material Properties. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 215-224.	0.3	0
49	Full-Field Mode Shape Analysis, Alignment and Averaging Across Measurements. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 71-75.	0.3	0
50	Imager-Based Techniques for Analyzing Metallic Melt Pools for Additive Manufacturing. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 63-69.	0.3	0
51	Blind Identification of Output-Only Systems and Structural Damage via Sparse Representations. , 2021, , 1-20.		0
52	Generation of selective single-mode guided waves by d_{36} type piezoelectric wafer. Applied Physics Letters, 2022, 120, 214101.	1.5	0