

# Michael Dähler

## List of Publications by Year in descending order

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58  
papers

1,020  
citations

471509

17  
h-index

434195

31  
g-index

61  
all docs

61  
docs citations

61  
times ranked

583  
citing authors

#	ARTICLE	IF	CITATIONS
1	Determination of structural and damage detection system influencing parameters on the value of information. Structural Health Monitoring, 2022, 21, 19-36.	7.5	15
2	Statistical subspace-based damage detection with estimated reference. Mechanical Systems and Signal Processing, 2022, 164, 108241.	8.0	9
3	Uncertainty quantification of input matrices and transfer function in input/output subspace system identification. Mechanical Systems and Signal Processing, 2022, 167, 108581.	8.0	7
4	Sensor placement with optimal damage detectability for statistical damage detection. Mechanical Systems and Signal Processing, 2022, 170, 108767.	8.0	17
5	Kalman filter-based subspace identification for operational modal analysis under unmeasured periodic excitation. Mechanical Systems and Signal Processing, 2021, 146, 106996.	8.0	20
6	Uncertainty quantification for the Modal Phase Collinearity of complex mode shapes. Mechanical Systems and Signal Processing, 2021, 152, 107436.	8.0	13
7	Uncertainty quantification of the Modal Assurance Criterion in operational modal analysis. Mechanical Systems and Signal Processing, 2021, 152, 107457.	8.0	31
8	Hankel matrix-based Mahalanobis distance for fault detection robust towards changes in process noise covariance. IFAC-PapersOnLine, 2021, 54, 73-78.	0.9	1
9	Damage Localization in Mechanical Systems by Lasso Regression. IFAC-PapersOnLine, 2021, 54, 286-291.	0.9	3
10	Subspace-based Mahalanobis damage detection robust to changes in excitation covariance. Structural Control and Health Monitoring, 2021, 28, e2760.	4.0	10
11	A reliability-based approach to determine the minimum detectable damage for statistical damage detection. Mechanical Systems and Signal Processing, 2021, 154, 107561.	8.0	18
12	Statistical model-based optimization for damage extent quantification. Mechanical Systems and Signal Processing, 2021, 160, 107894.	8.0	5
13	The Minimum Detectable Damage as an Optimization Criterion for Performance-Based Sensor Placement. Conference Proceedings of the Society for Experimental Mechanics, 2021, , 53-64.	0.5	0
14	Fault detection for linear parameter varying systems under changes in the process noise covariance. IFAC-PapersOnLine, 2020, 53, 13668-13673.	0.9	5
15	Clustering of Redundant Parameters for Fault Isolation with Gaussian Residuals. IFAC-PapersOnLine, 2020, 53, 13727-13732.	0.9	1
16	Variance computation for system matrices and transfer function from input/output subspace system identification. IFAC-PapersOnLine, 2020, 53, 933-938.	0.9	1
17	Vibration-based damage localization with load vectors under temperature changes. Structural Control and Health Monitoring, 2019, 26, e2439.	4.0	14
18	Towards robust statistical damage localization via model-based sensitivity clustering. Mechanical Systems and Signal Processing, 2019, 134, 106341.	8.0	19

#	ARTICLE	IF	CITATIONS
19	Vibration-Based Monitoring of Civil Structures with Subspace-Based Damage Detection. Intelligent Systems, Control and Automation: Science and Engineering, 2018, , 307-326.	0.5	4
20	Asymptotic analysis of subspace-based data-driven residual for fault detection with uncertain reference. IFAC-PapersOnLine, 2018, 51, 414-419.	0.9	5
21	On Damage Detection System Information for Structural Systems. Structural Engineering International: Journal of the International Association for Bridge and Structural Engineering (IABSE), 2018, 28, 255-268.	0.8	15
22	Statistical Vibration-based Damage Localization on Saint-Nazaire Bridge Mock-up. , 2018, , .		0
23	Variance analysis for model updating with a finite element based subspace fitting approach. Mechanical Systems and Signal Processing, 2017, 91, 142-156.	8.0	7
24	Statistical damage localization with stochastic load vectors using multiple mode sets. Structural Health Monitoring, 2017, 16, 518-535.	7.5	6
25	Statistical methods for damage detection applied to civil structures. Procedia Engineering, 2017, 199, 1919-1924.	1.2	27
26	Change detection and isolation in mechanical system parameters based on perturbation analysis. IFAC-PapersOnLine, 2017, 50, 419-424.	0.9	2
27	Fault detection, isolation and quantification from Gaussian residuals with application to structural damage diagnosis. Annual Reviews in Control, 2016, 42, 244-256.	7.9	30
28	Variance estimation of modal parameters from output-only and input/output subspace-based system identification. Journal of Sound and Vibration, 2016, 379, 1-27.	3.9	60
29	On the Influence of Sample Length and Measurement Noise on the Stochastic Subspace Damage Detection Technique. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 35-46.	0.5	1
30	Fault Isolation and Quantification from Gaussian Residuals with Application to Structural Damage Quantification. This work was partially supported by the European project FP7PEOPLE-2009-IAPP 251515 ISMS.. IFAC-PapersOnLine, 2015, 48, 640-645.	0.9	0
31	Vibration Monitoring by Eigenstructure Change Detection Based on Perturbation Analysis**This work has been supported by the ITEA2 MODRIO project.. IFAC-PapersOnLine, 2015, 48, 999-1004.	0.9	4
32	First Mode Damping Ratios for Buildings. Earthquake Spectra, 2015, 31, 367-381.	3.1	59
33	Operational modal analysis with uncertainty quantification for SDDL-based damage localization. MATEC Web of Conferences, 2015, 20, 02002.	0.2	1
34	Robust statistical damage localization with stochastic load vectors. Structural Control and Health Monitoring, 2015, 22, 557-573.	4.0	18
35	Subspace-based damage detection under changes in the ambient excitation statistics. Mechanical Systems and Signal Processing, 2014, 45, 207-224.	8.0	66
36	Structural health monitoring with statistical methods during progressive damage test of S101 Bridge. Engineering Structures, 2014, 69, 183-193.	5.3	106

#	ARTICLE	IF	CITATIONS
37	Efficient Computation of Minmax Tests for Fault Isolation and Their Application to Structural Damage Localization. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 7382-7387.	0.4	4
38	Multi-Order Covariance Computation for Estimates in Stochastic Subspace Identification Using QR Decompositions. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 9498-9503.	0.4	3
39	Uncertainty quantification for modal parameters from stochastic subspace identification on multi-setup measurements. Mechanical Systems and Signal Processing, 2013, 36, 562-581.	8.0	79
40	Subspace-based fault detection robust to changes in the noise covariances. Automatica, 2013, 49, 2734-2743.	5.0	47
41	Efficient multi-order uncertainty computation for stochastic subspace identification. Mechanical Systems and Signal Processing, 2013, 38, 346-366.	8.0	100
42	Statistical decision making for damage localization with stochastic load vectors. Mechanical Systems and Signal Processing, 2013, 39, 426-440.	8.0	24
43	Optimal Sensor Placement with a Statistical Criterion for Subspace-Based Damage Detection. Conference Proceedings of the Society for Experimental Mechanics, 2013, , 219-229.	0.5	2
44	Damage Localization Using a Statistical Test on Residuals from the SDDL Approach. Conference Proceedings of the Society for Experimental Mechanics, 2013, , 143-152.	0.5	0
45	Uncertainty Quantification for Stochastic Damage Localization for Mechanical Systems*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1017-1022.	0.4	2
46	Modular Subspace-Based System Identification From Multi-Setup Measurements. IEEE Transactions on Automatic Control, 2012, 57, 2951-2956.	5.7	21
47	Fast multi-order computation of system matrices in subspace-based system identification. Control Engineering Practice, 2012, 20, 882-894.	5.5	53
48	Operational Modal Analysis Using a Fast Stochastic Subspace Identification Method. Conference Proceedings of the Society for Experimental Mechanics, 2012, , 19-24.	0.5	14
49	Changes in the Statistics of Ambient Excitations in the Performance of Two Damage Detection Schemes. Conference Proceedings of the Society for Experimental Mechanics, 2012, , 309-316.	0.5	1
50	Robust Subspace Based Fault Detection. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 13221-13226.	0.4	16
51	Fast Multi-Order Stochastic Subspace Identification. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 6523-6528.	0.4	5
52	Uncertainty quantification for stochastic subspace identification on multi-setup measurements. , 2011, , .		3
53	Damage Detection in Wind Turbine Blade Panels Using Three Different SHM Techniques. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 125-134.	0.5	4
54	Confidence Intervals of Modal Parameters during Progressive Damage Test. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 237-250.	0.5	2

#	ARTICLE	IF	CITATIONS
55	Data Fusion for System Identification of the Humber Bridge. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 83-98.	0.5	3
56	Confidence Intervals on Modal Parameters in Stochastic Subspace Identification. , 2010, , .		1
57	Modular Subspace-based System Identification and Damage Detection on Large Structures. IABSE Symposium Report, 2010, , .	0.0	2
58	Nonequispaced Hyperbolic Cross Fast Fourier Transform. SIAM Journal on Numerical Analysis, 2010, 47, 4415-4428.	2.3	26