

Marek Morzynski

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

1,660
citations

623188

14
h-index

433756

31
g-index

52
all docs

52
docs citations

52
times ranked

812
citing authors

#	ARTICLE	IF	CITATIONS
1	A hierarchy of low-dimensional models for the transient and post-transient cylinder wake. <i>Journal of Fluid Mechanics</i> , 2003, 497, 335-363.	1.4	765
2	Recursive dynamic mode decomposition of transient and post-transient wake flows. <i>Journal of Fluid Mechanics</i> , 2016, 809, 843-872.	1.4	145
3	Solution of the eigenvalue problems resulting from global non-parallel flow stability analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1999, 169, 161-176.	3.4	88
4	Model-based Control of Vortex Shedding Using Low-dimensional Galerkin Models. , 2003, , .		74
5	Low-order model for successive bifurcations of the fluidic pinball. <i>Journal of Fluid Mechanics</i> , 2020, 884, .	1.4	54
6	A Finite-Time Thermodynamics of Unsteady Fluid Flows. <i>Journal of Non-Equilibrium Thermodynamics</i> , 2008, 33, .	2.4	53
7	Mean field representation of the natural and actuated cylinder wake. <i>Physics of Fluids</i> , 2010, 22, 034102.	1.6	49
8	Low-Dimensional Models for Feedback Flow Control. Part II: Control Design and Dynamic Estimation. , 2004, , .		37
9	Cluster-based network model. <i>Journal of Fluid Mechanics</i> , 2021, 906, .	1.4	32
10	Reduced-order models for closed-loop wake control. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011, 369, 1513-1524.	1.6	31
11	Stabilization of the fluidic pinball with gradient-enriched machine learning control. <i>Journal of Fluid Mechanics</i> , 2021, 917, .	1.4	24
12	Nonlinear Flow Control Based on a Low Dimensional Model of Fluid Flow. , 0, , 369-386.		23
13	Galerkin Method for Nonlinear Dynamics. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2011, , 111-149.	0.3	19
14	Explorative gradient method for active drag reduction of the fluidic pinball and slanted Ahmed body. <i>Journal of Fluid Mechanics</i> , 2022, 932, .	1.4	19
15	Sparsity enabled cluster reduced-order models for control. <i>Journal of Computational Physics</i> , 2018, 352, 388-409.	1.9	18
16	Galerkin force model for transient and post-transient dynamics of the fluidic pinball. <i>Journal of Fluid Mechanics</i> , 2021, 918, .	1.4	17
17	Tuned POD Galerkin models for transient feedback regulation of the cylinder wake. , 2006, , .		16
18	System reduction strategy for Galerkin models of fluid flows. <i>International Journal for Numerical Methods in Fluids</i> , 2010, 63, 231-248.	0.9	16

#	ARTICLE	IF	CITATIONS
19	Continuous Mode Interpolation for Control-Oriented Models of Fluid Flow. , 2007, , 260-278.		16
20	Generalized Mean-Field Model for Flow Control Using a Continuous Mode Interpolation. , 2006, , .		15
21	Metric for attractor overlap. Journal of Fluid Mechanics, 2019, 874, 720-755.	1.4	14
22	Cluster-based hierarchical network model of the fluidic pinball “cartographing transient and post-transient, multi-frequency, multi-attractor behaviour. Journal of Fluid Mechanics, 2022, 934, .	1.4	14
23	Cluster-based control of a separating flow over a smoothly contoured ramp. Theoretical and Computational Fluid Dynamics, 2017, 31, 579-593.	0.9	12
24	Temporal-Harmonic Specific POD Mode Extraction. , 2008, , .		11
25	Finite Element Method for Global Stability Analysis of 3D Flow. , 2008, , .		10
26	On the need of nonlinear control for efficient model-based wake stabilization. Theoretical and Computational Fluid Dynamics, 2014, 28, 23-49.	0.9	9
27	Low Order Galerkin Models for the Actuated Flow Around 2-D Airfoils. , 2007, , .		8
28	Modal decomposition-based global stability analysis for reduced order modeling of 2D and 3D wake flows. International Journal for Numerical Methods in Fluids, 2016, 81, 178-191.	0.9	8
29	Galerkin Models Enhancements for Flow Control. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2011, , 151-252.	0.3	8
30	An Optimal Model Identification for Oscillatory Dynamics with a Stable Limit Cycle. Journal of Nonlinear Science, 2014, 24, 245-275.	1.0	6
31	On the need of mode interpolation for data-driven Galerkin models of a transient flow around a sphere. Theoretical and Computational Fluid Dynamics, 2017, 31, 111-126.	0.9	6
32	Continuous Mode Interpolation between Multiple Operating and Boundary Conditions for Reduced Order Modelling of the Flow. AIP Conference Proceedings, 2011, , .	0.3	5
33	Cluster-based reduced-order modelling of shear flows. AIP Conference Proceedings, 2014, , .	0.3	5
34	Artificial intelligence control applied to drag reduction of the fluidic pinball. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900268.	0.2	5
35	Erratum to the article “A Finite-Time Thermodynamics of Unsteady Fluid Flows”, Journal of Non-Equilibrium Thermodynamics, 2008, 33, .	2.4	4
36	Control Oriented Models&Feedback Design in Fluid Flow Systems: A Review. , 2006, , .		3

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37	Fast Approximated POD for a Flat Plate Benchmark with a Time Varying Angle of Attack. , 2008, , .		3
38	APPLICATIONS OF 3D PCA METHOD FOR EXTRACTION OF MEAN SHAPE AND GEOMETRICAL FEATURES OF BIOLOGICAL OBJECTS SET. Mathematical Modelling and Analysis, 2008, 13, 413-420.	0.7	3
39	Numerical Analysis of Geometrical Features of 3D Biological Objects, for Three-Dimensional Biometric and Anthropometric Database. Lecture Notes in Computer Science, 2011, , 108-117.	1.0	3
40	Reduced-Order Modeling of the Fluidic Pinball. Springer Proceedings in Complexity, 2019, , 205-213.	0.2	2
41	Shift Modes and Transient Dynamics in Low Order, Design Oriented Galerkin Models. , 2007, , .		1
42	Bio-Inspired, Structural Optimization Method Based on the Principle of Constant Strain Energy Density. , 2008, , .		1
43	3D Global Flow Stability Analysis on Unstructured Grids. , 2007, , 1293-1302.		1
44	Global Stability Analysis for Linear Dynamics. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2011, , 77-110.	0.3	1
45	Scalability tests of the direct numerical simulation solver UNS3. Journal of Mechanical and Transport Engineering, 2015, , 59-70.	0.2	1
46	Fluid Structure Interaction for Symmetric Manoeuvre Base on Ultra Light Plane. , 2011, , .		0
47	Route to Chaos in the Fluidic Pinball. , 2018, , .		0
48	Unstable Periodically Forced Navierâ€“Stokes Solutionsâ€“Towards Nonlinear First-Principle Reduced-Order Modeling of Actuator Performance. Computational Methods in Applied Sciences (Springer), 2019, , 117-145.	0.1	0
49	Biological Objects Data Registration Algorithm for Modal (Low Dimensional) Analysis. Communications in Computer and Information Science, 2013, , 655-659.	0.4	0
50	Global Stability Analysis of 2-D Flows with Closed Separation Bubbles. Notes on Numerical Fluid Mechanics, 1993, , 81-88.	0.1	0
51	Stability Analysis of the Wake Control Problem. Fluid Mechanics and Its Applications, 1999, , 261-266.	0.1	0