

# Omer San

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3468694/publications.pdf>

Version: 2024-02-01

105  
papers

3,388  
citations

136885

32  
h-index

155592

55  
g-index

105  
all docs

105  
docs citations

105  
times ranked

1922  
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of radial expansion, eversion, and cavitation of soft functionally graded material spheres. <i>Mathematics and Mechanics of Solids</i> , 2023, 28, 208-228.	1.5	1
2	Deep neural network enabled corrective source term approach to hybrid analysis and modeling. <i>Neural Networks</i> , 2022, 146, 181-199.	3.3	17
3	Hyperparameter Search using the Genetic Algorithm for Surrogate Modeling of Geophysical Flows. , 2022, , .		1
4	Sketching Methods for Dynamic Mode Decomposition in Spherical Shallow Water Equations. , 2022, , .		2
5	Multi-fidelity information fusion with concatenated neural networks. <i>Scientific Reports</i> , 2022, 12, 5900.	1.6	16
6	Risk-based implementation of COLREGs for autonomous surface vehicles using deep reinforcement learning. <i>Neural Networks</i> , 2022, 152, 17-33.	3.3	14
7	Data-driven variational multiscale reduced order models. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 373, 113470.	3.4	37
8	Comparative study of sequential data assimilation methods for the Kuramoto-Sivashinsky equation. , 2021, , .		1
9	Nonlinear Filtering for Simultaneous State Correction and Eddy Viscosity Estimation in Computational Fluid Dynamics. , 2021, , .		0
10	Physics guided machine learning using simplified theories. <i>Physics of Fluids</i> , 2021, 33, .	1.6	71
11	Multifidelity computing for coupling full and reduced order models. <i>PLoS ONE</i> , 2021, 16, e0246092.	1.1	13
12	Geometric Change Detection in Digital Twins. <i>Digital</i> , 2021, 1, 111-129.	1.1	6
13	Data assimilation empowered neural network parametrizations for subgrid processes in geophysical flows. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	21
14	A nudged hybrid analysis and modeling approach for realtime wake-vortex transport and decay prediction. <i>Computers and Fluids</i> , 2021, 221, 104895.	1.3	8
15	Applying object detection to marine data and exploring explainability of a fully convolutional neural network using principal component analysis. <i>Ecological Informatics</i> , 2021, 62, 101269.	2.3	6
16	The digital twin revolution. <i>Nature Computational Science</i> , 2021, 1, 307-308.	3.8	28
17	Hybrid analysis and modeling, eclecticism, and multifidelity computing toward digital twin revolution. <i>GAMM Mitteilungen</i> , 2021, 44, e202100007.	2.7	26
18	Model fusion with physics-guided machine learning: Projection-based reduced-order modeling. <i>Physics of Fluids</i> , 2021, 33, .	1.6	24

#	ARTICLE	IF	CITATIONS
19	On closures for reduced order modelsâ€”A spectrum of first-principle to machine-learned avenues. Physics of Fluids, 2021, 33, .	1.6	78
20	A non-intrusive parametric reduced order model for urban wind flow using deep learning and Grassmann manifold.. Journal of Physics: Conference Series, 2021, 2018, 012038.	0.3	1
21	Hybrid analysis and modeling for next generation of digital twins. Journal of Physics: Conference Series, 2021, 2018, 012031.	0.3	5
22	A nonintrusive hybrid neural-physics modeling of incomplete dynamical systems: Lorenz equations. GEM - International Journal on Geomathematics, 2021, 12, 1.	0.7	6
23	Nonlinear proper orthogonal decomposition for convection-dominated flows. Physics of Fluids, 2021, 33, .	1.6	24
24	Long short-term memory embedded nudging schemes for nonlinear data assimilation of geophysical flows. Physics of Fluids, 2020, 32, .	1.6	38
25	PyDA: A Hands-On Introduction to Dynamical Data Assimilation with Python. Fluids, 2020, 5, 225.	0.8	11
26	Numerical investigation of air mixer for HVAC testing applications (ASHRAE RP-1733). Science and Technology for the Built Environment, 2020, 26, 1252-1273.	0.8	3
27	Interface learning in fluid dynamics: Statistical inference of closures within microâ€”macro-coupling models. Physics of Fluids, 2020, 32, 091704.	1.6	12
28	COLREG-Compliant Collision Avoidance for Unmanned Surface Vehicle Using Deep Reinforcement Learning. IEEE Access, 2020, 8, 165344-165364.	2.6	44
29	Interface learning of multiphysics and multiscale systems. Physical Review E, 2020, 102, 053304.	0.8	6
30	Forward sensitivity approach for estimating eddy viscosity closures in nonlinear model reduction. Physical Review E, 2020, 102, 043302.	0.8	5
31	Recent Numerical Advances in Fluid Mechanics. Fluids, 2020, 5, 73.	0.8	0
32	Data-driven recovery of hidden physics in reduced order modeling of fluid flows. Physics of Fluids, 2020, 32, .	1.6	70
33	Numerical assessments of a parametric implicit large eddy simulation model. Journal of Computational and Applied Mathematics, 2020, 376, 112866.	1.1	0
34	Reduced order modeling of fluid flows: Machine learning, Kolmogorov barrier, closure modeling, and partitioning (Invited). , 2020, , .		5
35	Spatiotemporally dynamic implicit large eddy simulation using machine learning classifiers. Physica D: Nonlinear Phenomena, 2020, 406, 132409.	1.3	10
36	Taming an Autonomous Surface Vehicle for Path Following and Collision Avoidance Using Deep Reinforcement Learning. IEEE Access, 2020, 8, 41466-41481.	2.6	40

#	ARTICLE	IF	CITATIONS
37	Breaking the Kolmogorov Barrier in Model Reduction of Fluid Flows. <i>Fluids</i> , 2020, 5, 26.	0.8	15
38	Sampling and resolution characteristics in reduced order models of shallow water equations: Intrusive vs nonintrusive. <i>International Journal for Numerical Methods in Fluids</i> , 2020, 92, 992-1036.	0.9	16
39	A priori analysis on deep learning of subgrid-scale parameterizations for Kraichnan turbulence. <i>Theoretical and Computational Fluid Dynamics</i> , 2020, 34, 429-455.	0.9	36
40	Feature engineering and symbolic regression methods for detecting hidden physics from sparse sensor observation data. <i>Physics of Fluids</i> , 2020, 32, .	1.6	47
41	Digital Twin: Values, Challenges and Enablers From a Modeling Perspective. <i>IEEE Access</i> , 2020, 8, 21980-22012.	2.6	746
42	An Evolve-Then-Correct Reduced Order Model for Hidden Fluid Dynamics. <i>Mathematics</i> , 2020, 8, 570.	1.1	15
43	A long short-term memory embedding for hybrid uplifted reduced order models. <i>Physica D: Nonlinear Phenomena</i> , 2020, 409, 132471.	1.3	35
44	Deep Reinforcement Learning Controller for 3D Path Following and Collision Avoidance by Autonomous Underwater Vehicles. <i>Frontiers in Robotics and AI</i> , 2020, 7, 566037.	2.0	20
45	Light induced bacterial deactivation using graphene quantum dot. , 2020, , .		1
46	GANs enabled super-resolution reconstruction of wind field. <i>Journal of Physics: Conference Series</i> , 2020, 1669, 012029.	0.3	6
47	A deep learning enabler for nonintrusive reduced order modeling of fluid flows. <i>Physics of Fluids</i> , 2019, 31, .	1.6	117
48	Equation Discovery Using Fast Function Extraction: a Deterministic Symbolic Regression Approach. <i>Fluids</i> , 2019, 4, 111.	0.8	7
49	CFD Julia: A Learning Module Structuring an Introductory Course on Computational Fluid Dynamics. <i>Fluids</i> , 2019, 4, 159.	0.8	14
50	A dynamic closure modeling framework for model order reduction of geophysical flows. <i>Physics of Fluids</i> , 2019, 31, .	1.6	28
51	Sub-grid scale model classification and blending through deep learning. <i>Journal of Fluid Mechanics</i> , 2019, 870, 784-812.	1.4	57
52	An artificial neural network framework for reduced order modeling of transient flows. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2019, 77, 271-287.	1.7	97
53	A Relaxation Filtering Approach for Two-Dimensional Rayleigh-Taylor Instability-Induced Flows. <i>Fluids</i> , 2019, 4, 78.	0.8	7
54	Acknowledgement to Reviewers of <i>Fluids</i> in 2018. <i>Fluids</i> , 2019, 4, 9.	0.8	0

#	ARTICLE	IF	CITATIONS
55	Nonintrusive reduced order modeling framework for quasigeostrophic turbulence. <i>Physical Review E</i> , 2019, 100, 053306.	0.8	51
56	Memory embedded non-intrusive reduced order modeling of non-ergodic flows. <i>Physics of Fluids</i> , 2019, 31, .	1.6	40
57	Subgrid modelling for two-dimensional turbulence using neural networks. <i>Journal of Fluid Mechanics</i> , 2019, 858, 122-144.	1.4	185
58	Machine learning closures for model order reduction of thermal fluids. <i>Applied Mathematical Modelling</i> , 2018, 60, 681-710.	2.2	49
59	Laser Shock Wave-Assisted Patterning on NiTi Shape Memory Alloy Surfaces. <i>Shape Memory and Superelasticity</i> , 2018, 4, 224-231.	1.1	11
60	An adaptive multilevel wavelet framework for scale-selective WENO reconstruction schemes. <i>International Journal for Numerical Methods in Fluids</i> , 2018, 87, 239-269.	0.9	3
61	Extreme learning machine for reduced order modeling of turbulent geophysical flows. <i>Physical Review E</i> , 2018, 97, 042322.	0.8	63
62	A dynamic closure modeling framework for large eddy simulation using approximate deconvolution: Burgers equation. <i>Cogent Physics</i> , 2018, 5, 1464368.	0.7	3
63	Neural network closures for nonlinear model order reduction. <i>Advances in Computational Mathematics</i> , 2018, 44, 1717-1750.	0.8	95
64	Explicit and implicit LES closures for Burgers turbulence. <i>Journal of Computational and Applied Mathematics</i> , 2018, 327, 12-40.	1.1	14
65	Generalized Deconvolution Procedure for Structural Modeling of Turbulence. <i>Journal of Scientific Computing</i> , 2018, 75, 1187-1206.	1.1	7
66	Data-driven deconvolution for large eddy simulations of Kraichnan turbulence. <i>Physics of Fluids</i> , 2018, 30, 125109.	1.6	72
67	Optimal Control of Heat Transfer in Unsteady Stokes Flows. , 2018, , .		2
68	A Hybrid Approach for Model Order Reduction of Barotropic Quasi-Geostrophic Turbulence. <i>Fluids</i> , 2018, 3, 86.	0.8	23
69	A Hybrid Analytics Paradigm Combining Physics-Based Modeling and Data-Driven Modeling to Accelerate Incompressible Flow Solvers. <i>Fluids</i> , 2018, 3, 50.	0.8	10
70	A localised dynamic closure model for Euler turbulence. <i>International Journal of Computational Fluid Dynamics</i> , 2018, 32, 326-378.	0.5	3
71	Stabilized principal interval decomposition method for model reduction of nonlinear convective systems with moving shocks. <i>Computational and Applied Mathematics</i> , 2018, 37, 6870-6902.	1.3	16
72	Stratified Kelvin-Helmholtz turbulence of compressible shear flows. <i>Nonlinear Processes in Geophysics</i> , 2018, 25, 457-476.	0.6	6

#	ARTICLE	IF	CITATIONS
73	Improved singlet oxygen generation and antimicrobial activity of sulphur-doped graphene quantum dots coupled with methylene blue for photodynamic therapy applications. Photodiagnosis and Photodynamic Therapy, 2018, 24, 7-14.	1.3	56
74	Formation of two-way shape memory effect in NiTi alloy using pulsed laser irradiation. , 2018, , .		0
75	Scalable patterning using laser-induced shock waves. Optical Engineering, 2018, 57, 1.	0.5	5
76	A dynamic subgrid-scale modeling framework for Boussinesq turbulence. International Journal of Heat and Mass Transfer, 2017, 108, 1656-1675.	2.5	6
77	A dynamic framework for functional parameterisations of the eddy viscosity coefficient in two-dimensional turbulence. International Journal of Computational Fluid Dynamics, 2017, 31, 69-92.	0.5	4
78	Learning-based robust stabilization for reduced-order models of 2D and 3D Boussinesq equations. Applied Mathematical Modelling, 2017, 49, 162-181.	2.2	33
79	A stable and scale-aware dynamic modeling framework for subgrid-scale parameterizations of two-dimensional turbulence. Computers and Fluids, 2017, 158, 11-38.	1.3	18
80	A novel dynamic framework for subgrid scale parametrization of mesoscale eddies in quasigeostrophic turbulent flows. Computers and Mathematics With Applications, 2017, 74, 420-445.	1.4	4
81	Laser-induced hydrogen generation from graphite and coal. International Journal of Hydrogen Energy, 2017, 42, 26277-26288.	3.8	15
82	A neural network approach for the blind deconvolution of turbulent flows. Journal of Fluid Mechanics, 2017, 831, 151-181.	1.4	139
83	Resolution and Energy Dissipation Characteristics of Implicit LES and Explicit Filtering Models for Compressible Turbulence. Fluids, 2017, 2, 14.	0.8	17
84	Numerical assessments of ocean energy extraction from western boundary currents using a quasi-geostrophic ocean circulation model. International Journal of Marine Energy, 2016, 16, 12-29.	1.8	5
85	Dynamic modeling of the horizontal eddy viscosity coefficient for quasigeostrophic ocean circulation problems. Journal of Ocean Engineering and Science, 2016, 1, 300-324.	1.7	8
86	Analysis of low-pass filters for approximate deconvolution closure modelling in one-dimensional decaying Burgers turbulence. International Journal of Computational Fluid Dynamics, 2016, 30, 20-37.	0.5	23
87	Principal interval decomposition framework for POD reduced-order modeling of convective Boussinesq flows. International Journal for Numerical Methods in Fluids, 2015, 78, 37-62.	0.9	48
88	A posteriori analysis of low-pass spatial filters for approximate deconvolution large eddy simulations of homogeneous incompressible flows. International Journal of Computational Fluid Dynamics, 2015, 29, 40-66.	0.5	26
89	A stabilized proper orthogonal decomposition reduced-order model for large scale quasigeostrophic ocean circulation. Advances in Computational Mathematics, 2015, 41, 1289-1319.	0.8	46
90	A Novel High-Order Accurate Compact Stencil Poisson Solver: Application to Cavity Flows. International Journal of Applied Mechanics, 2015, 07, 1550006.	1.3	3

#	ARTICLE	IF	CITATIONS
91	Evaluation of Riemann flux solvers for WENO reconstruction schemes: Kelvin-Helmholtz instability. Computers and Fluids, 2015, 117, 24-41.	1.3	49
92	Numerical assessments of high-order accurate shock capturing schemes: Kelvin-Helmholtz type vortical structures in high-resolutions. Computers and Fluids, 2014, 89, 254-276.	1.3	35
93	A dynamic eddy-viscosity closure model for large eddy simulations of two-dimensional decaying turbulence. International Journal of Computational Fluid Dynamics, 2014, 28, 363-382.	0.5	16
94	Stationary two-dimensional turbulence statistics using a Markovian forcing scheme. Computers and Fluids, 2013, 71, 1-18.	1.3	8
95	Approximate deconvolution large eddy simulation of a stratified two-layer quasigeostrophic ocean model. Ocean Modelling, 2013, 63, 1-20.	1.0	35
96	A coarse-grid projection method for accelerating incompressible flow computations. Journal of Computational Physics, 2013, 233, 480-508.	1.9	34
97	AN EFFICIENT COARSE GRID PROJECTION METHOD FOR QUASIGEOSTROPHIC MODELS OF LARGE-SCALE OCEAN CIRCULATION. International Journal for Multiscale Computational Engineering, 2013, 11, 463-495.	0.8	14
98	AN IMPROVED MODEL FOR REDUCED-ORDER PHYSIOLOGICAL FLUID FLOWS. Journal of Mechanics in Medicine and Biology, 2012, 12, 1250052.	0.3	30
99	DYNAMICS OF PULSATILE FLOWS THROUGH ELASTIC MICROTUBES. International Journal of Applied Mechanics, 2012, 04, 1250006.	1.3	20
100	High-order methods for decaying two-dimensional homogeneous isotropic turbulence. Computers and Fluids, 2012, 63, 105-127.	1.3	47
101	Approximate deconvolution large eddy simulation of a barotropic ocean circulation model. Ocean Modelling, 2011, 40, 120-132.	1.0	51
102	Size and expansion ratio analysis of micro nozzle gas flow. International Communications in Heat and Mass Transfer, 2009, 36, 402-411.	2.9	18
103	Comparing Piezoelectric and Electroosmotic Micropumps for Biomedical Devices. , 2008, , .		0
104	Numerical Modeling of Gas Flow in Converging-Diverging Micronozzles. , 2007, , .		1
105	Dynamic mode decomposition with core sketch. Physics of Fluids, 0, , .	1.6	7