

Eldad Avital

List of Publications by Year in descending order

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120
papers

1,373
citations

489802

18
h-index

488211

31
g-index

130
all docs

130
docs citations

130
times ranked

1267
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct numerical simulation on local scour around the cylinder induced by internal solitary waves propagating over a slope. <i>Ocean Engineering</i> , 2022, 247, 110525.	1.9	5
2	Source terms for benchmarking models of SARS-CoV-2 transmission via aerosols and droplets. <i>Royal Society Open Science</i> , 2022, 9, 212022.	1.1	8
3	Computational study of aerofoil's self-noise when subject to leading edge jet blowing flow control. , 2022, , .		0
4	An improved Eulerian method in three-dimensional direct numerical simulation on the local scour around a cylinder. <i>Applied Mathematical Modelling</i> , 2022, 110, 320-337.	2.2	1
5	Magnetohydrodynamics Solver for a Two-Phase Free Surface Flow Developed in OpenFOAM. <i>Fluids</i> , 2022, 7, 210.	0.8	5
6	Large Eddy Simulation of Microvortex Generators in a Turbulent Boundary Layer. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2021, 143, .	0.8	4
7	A numerical study on the influence of curvature ratio and vegetation density on a partially vegetated U-bend channel flow. <i>Advances in Water Resources</i> , 2021, 148, 103843.	1.7	13
8	A psychrometric model to assess the biological decay of the SARS-CoV-2 virus in aerosols. <i>PeerJ</i> , 2021, 9, e11024.	0.9	10
9	Aerodynamic performance improvements of a vertical axis wind turbine by leading-edge protuberance. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2021, 211, 104535.	1.7	28
10	Numerical Study of A Generic Tidal Turbine Using BEM Optimization Methods. <i>China Ocean Engineering</i> , 2021, 35, 344-351.	0.6	5
11	Turbulent flow simulation of a single-blade Magnus rotor. <i>Advances in Aerodynamics</i> , 2021, 3, .	1.3	0
12	A numerical study on suspended sediment transport in a partially vegetated channel flow. <i>Journal of Hydrology</i> , 2021, 599, 126335.	2.3	7
13	A resolved CFD-DEM-IBM algorithm for water entry problems. <i>Ocean Engineering</i> , 2021, 240, 110014.	1.9	3
14	Self-thermophoresis of laser-heated spherical Janus particles. <i>European Physical Journal E</i> , 2021, 44, 139.	0.7	5
15	Fluid-structure interaction of flexible submerged vegetation stems and kinetic turbine blades. <i>Computational Particle Mechanics</i> , 2020, 7, 839-848.	1.5	16
16	A resolved CFDEM method for the interaction between the fluid and the discontinuous solids with large movement. <i>International Journal for Numerical Methods in Engineering</i> , 2020, 121, 1738-1761.	1.5	7
17	Effect of in-service burnout on the transonic tip leakage flows over flat tip model. <i>Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy</i> , 2020, 234, 655-669.	0.8	6
18	Direct Numerical Simulations on Jets during the Propagation and Break down of Internal Solitary Waves on a Slope. <i>Water (Switzerland)</i> , 2020, 12, 671.	1.2	1

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19	Numerical modelling of a dual-rotor marine current turbine in a rectilinear tidal flow. <i>Ocean Engineering</i> , 2020, 200, 107026.	1.9	6
20	Dynamic large deformation analysis of a cantilever beam. <i>Mathematics and Computers in Simulation</i> , 2020, 174, 183-204.	2.4	10
21	Performance Improvements for a Vertical Axis Wind Turbine by Means of Gurney Flap. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2020, 142, .	0.8	23
22	Upper-room ultraviolet air disinfection might help to reduce COVID-19 transmission in buildings: a feasibility study. <i>PeerJ</i> , 2020, 8, e10196.	0.9	66
23	Tidal Current Energy for Indian Coastal Lines – A State Art of Review. <i>Journal of Physics: Conference Series</i> , 2020, 1716, 012008.	0.3	2
24	A Review on the Energy prospects of Indian Remote Islands and Preliminary assessment of Marine Current Energy Potential. <i>Journal of Physics: Conference Series</i> , 2020, 1716, 012007.	0.3	4
25	On the hydrodynamic stability of an imploding rotating circular cylindrical liquid liner. <i>Fluid Dynamics Research</i> , 2020, 52, 055505.	0.6	3
26	Large deformations of tapered beam with finite integration method. <i>Engineering Analysis With Boundary Elements</i> , 2019, 107, 115-123.	2.0	8
27	CFD analysis for the performance of micro-vortex generator on aerofoil and vertical axis turbine. <i>Journal of Renewable and Sustainable Energy</i> , 2019, 11, .	0.8	27
28	A performance analysis of tidal turbine conversion system based on control strategies. <i>Energy Procedia</i> , 2019, 160, 526-533.	1.8	6
29	Light-induced heat-conducting micro/nano spheroidal particles and their thermoosmotic velocity fields. <i>International Journal of Heat and Mass Transfer</i> , 2019, 143, 118541.	2.5	2
30	Study on the packed volume-to-void ratio of idealized human red blood cells using a finite-discrete element method. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2019, 40, 737-750.	1.9	5
31	Skewness as means for separating crackle from screech. , 2019, , .		0
32	Low Reynolds number proprotor aerodynamic performance improvement using the continuous surface curvature design approach. <i>Aeronautical Journal</i> , 2019, 123, 20-38.	1.1	1
33	CFD Analysis for the Performance of Gurney Flap on Aerofoil and Vertical Axis Turbine. <i>International Journal of Mechanical Engineering and Robotics Research</i> , 2019, , 385-392.	0.7	10
34	The Surface Curvature Effect on Performance of a Laboratory Scale Tidal Turbine. , 2019, , 101-113.		0
35	One-layer particle level set method. <i>Computers and Fluids</i> , 2018, 170, 141-156.	1.3	9
36	A computational model of ureteral peristalsis and an investigation into ureteral reflux. <i>Biomedical Engineering Letters</i> , 2018, 8, 117-125.	2.1	16

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37	Computational Parametric Study of the Axial and Radial Clearances in a Centrifugal Rotary Blood Pump. <i>ASAIO Journal</i> , 2018, 64, 643-650.	0.9	11
38	Optimization of Axial Pump Characteristic Dimensions and Induced Hemolysis for Mechanical Circulatory Support Devices. <i>ASAIO Journal</i> , 2018, 64, 727-734.	0.9	4
39	Hydrodynamic Assessment of a Dual-Rotor Horizontal Axis Marine Current Turbine. <i>International Journal of Engineering and Technology(UAE)</i> , 2018, 7, 455.	0.2	4
40	A novel discrete element method based on the distance potential for arbitrary 2D convex elements. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 115, 238-267.	1.5	28
41	Creating Real-Time Aeroacoustic Sound Effects Using Physically Informed Models. <i>AES: Journal of the Audio Engineering Society</i> , 2018, 66, 594-607.	0.8	7
42	Numerical and Experimental Study of Microvortex Generators. <i>Journal of Aircraft</i> , 2018, 55, 2256-2266.	1.7	7
43	A Novel Contact Algorithm Based on a Distance Potential Function for the 3D Discrete-Element Method. <i>Rock Mechanics and Rock Engineering</i> , 2018, 51, 3737-3769.	2.6	25
44	NASAL INTERNAL AND EXTERNAL AERODYNAMICS FOR HEALTHY AND BLOCKED CAVITIES. <i>Journal of Mechanics in Medicine and Biology</i> , 2018, 18, 1850050.	0.3	1
45	Numerical Simulation of Shoaling Broad-Crested Internal Solitary Waves. <i>Journal of Hydraulic Engineering</i> , 2017, 143, 04017006.	0.7	13
46	Computational methods for investigation of surface curvature effects on airfoil boundary layer behavior. <i>Journal of Algorithms and Computational Technology</i> , 2017, 11, 68-82.	0.4	11
47	Surface curvature effects on the tonal noise performance of a low Reynolds number aerofoil. <i>Applied Acoustics</i> , 2017, 125, 34-40.	1.7	11
48	Flow design and simulation of a gas compression system for hydrogen fusion energy production. <i>Fluid Dynamics Research</i> , 2017, 49, 045504.	0.6	3
49	Machinability and Optimization of Shrouded Centrifugal Impellers for Implantable Blood Pumps. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2017, 11, .	0.4	6
50	In-vitro investigation of the hemodynamic responses of the cerebral, coronary and renal circulations with a rotary blood pump installed in the descending aorta. <i>Medical Engineering and Physics</i> , 2017, 40, 2-10.	0.8	9
51	Pressure Wave in Liquid Generated by Pneumatic Pistons and Its Interaction with a Free Surface. <i>International Journal of Applied Mechanics</i> , 2017, 09, 1750037.	1.3	9
52	A three-phases model for the simulation of landslide-generated waves using the improved conservative level set method. <i>Computers and Fluids</i> , 2017, 159, 243-253.	1.3	25
53	Experimental investigation of nonlinear properties of crackle and screech in supersonic jets. <i>Journal of the Acoustical Society of America</i> , 2017, 141, EL567-EL573.	0.5	4
54	On parallel preconditioners for pressure Poisson equation in LES of complex geometry flows. <i>International Journal for Numerical Methods in Fluids</i> , 2017, 83, 446-464.	0.9	18

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55	Design and Analysis of a Marine Current Turbine. , 2017, , .		3
56	Sound Scattering by an Elastic Spherical Shell and its Cancellation using a Multi-pole Approach. Archives of Acoustics, 2017, 42, 697-705.	0.9	6
57	An Investigation on the Aggregation and Rheodynamics of Human Red Blood Cells Using High Performance Computations. Scientifica, 2017, 2017, 1-10.	0.6	8
58	Propagation of Pressure Waves in Compression System Prototype for Magnetized Target Fusion Reactor in General Fusion Inc.. , 2017, , 955-960.		0
59	In-vitro investigation of cerebral-perfusion effects of a rotary blood pump installed in the descending aorta. Journal of Biomechanics, 2016, 49, 1865-1872.	0.9	10
60	Numerical simulation of interaction between internal solitary waves and submerged ridges. Applied Ocean Research, 2016, 58, 118-134.	1.8	16
61	Slip and turbulence phenomena in journal bearings with application to implantable rotary blood pumps. Tribology International, 2016, 104, 157-165.	3.0	4
62	Surface wave effect on marine current turbine, modelling and analysis. , 2016, , .		4
63	Modeling and controller implementation of tidal turbine for Indian remote islands. , 2016, , .		2
64	Flow Separation and Passive Flow Control on E387 Airfoil. , 2016, , .		2
65	Effects of Submergence on Low and Moderate Reynolds Number Free-Surface Flow Around a Matrix of Cubes. Journal of Fluids Engineering, Transactions of the ASME, 2016, 138, .	0.8	3
66	Experimental study of surface curvature effects on aerodynamic performance of a low Reynolds number airfoil for use in small wind turbines. Journal of Renewable and Sustainable Energy, 2016, 8, .	0.8	28
67	Parametric analysis of a tidal current turbine using CFD techniques. , 2016, , .		5
68	Parallel Pressure Poisson Solvers for LES of Complex Geometry Flows. , 2015, , .		0
69	Large Eddy Simulation of Flows Around a Kite Used as an Auxiliary Propulsion System. Journal of Fluids Engineering, Transactions of the ASME, 2015, 137, .	0.8	8
70	Sound scattering and its cancellation by an elastic spherical shell in free space and near a free surface. Wave Motion, 2015, 55, 35-47.	1.0	6
71	Sound Scattering and Its Reduction by a Janus Sphere Type. Advances in Acoustics and Vibration, 2014, 2014, 1-11.	0.5	5
72	Numerical simulation of a marine current turbine in free surface flow. Renewable Energy, 2014, 63, 715-723.	4.3	65

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73	Thin film flow of magnetohydrodynamic (MHD) pseudo-plastic fluid on vertical wall. Applied Mathematics and Computation, 2014, 245, 544-556.	1.4	10
74	A well-balanced explicit/semi-implicit finite element scheme for shallow water equations in drying/wetting areas. International Journal for Numerical Methods in Fluids, 2014, 75, 815-834.	0.9	6
75	Saltation of particles in turbulent channel flow. Physical Review E, 2014, 89, 052202.	0.8	50
76	Solution of the steady thin film flow of non-Newtonian fluid on vertical cylinder using Adomian Decomposition Method. Journal of the Franklin Institute, 2013, 350, 818-839.	1.9	12
77	Large scale simulation of red blood cell aggregation in shear flows. Journal of Biomechanics, 2013, 46, 1810-1817.	0.9	72
78	Investigation of Improved Aerodynamic Performance of Isolated Airfoils Using CIRCLE Method. Procedia Engineering, 2013, 56, 560-567.	1.2	5
79	NONLINEAR PROPAGATION OF SOUND EMITTED BY HIGH SPEED WAVE PACKETS. Journal of Computational Acoustics, 2013, 21, 1250027.	1.0	8
80	Direct numerical simulation of sediment entrainment in turbulent channel flow. Physics of Fluids, 2013, 25, .	1.6	62
81	Effect of jet noise reduction on gas turbine engine efficiency. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2013, 227, 1441-1455.	0.7	1
82	Simulation of the Upper Urinary System. Critical Reviews in Biomedical Engineering, 2013, 41, 259-268.	0.5	8
83	Sound Scattering by a Flexible Plate Embedded on Free Surface. Advances in Acoustics and Vibration, 2012, 2012, 1-13.	0.5	4
84	Detached Eddy Simulation of Free-Surface Flow Around a Submerged Submarine Fairwater. Journal of Fluids Engineering, Transactions of the ASME, 2012, 134, .	0.8	5
85	Aerodynamic Improvements of Wind-Turbine Airfoil Geometries With the Prescribed Surface Curvature Distribution Blade Design (CIRCLE) Method. Journal of Engineering for Gas Turbines and Power, 2012, 134, .	0.5	11
86	Design of high-efficiency turbomachinery blades for energy conversion devices with the three-dimensional prescribed surface curvature distribution blade design (CIRCLE) method. Applied Energy, 2012, 89, 215-227.	5.1	47
87	Sound scattering by free surface piercing and fluid-loaded cylindrical shells. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 2852-2863.	1.6	8
88	Aerodynamic Improvements of Wind-Turbine Airfoil Geometries With the Prescribed Surface Curvature Distribution Blade Design (CIRCLE) Method. , 2011, , .		2
89	Computations of Nonlinear Propagation of Sound Emitted from High Speed Mixing Layers~!2009-10-22~!2010-02-25~!2010-05-04~!. The Open Acoustics Journal, 2010, 3, 11-20.	0.1	3
90	COMPUTATION OF THE FLOW AND NEAR SOUND FIELDS OF A FREE SURFACE PIERCING CYLINDER. Journal of Computational Acoustics, 2009, 17, 365-382.	1.0	6

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91	Study of Sound Generated by Large-Scale Structures in Low Speed Coaxial Jets. International Journal of Aeroacoustics, 2009, 8, 261-282.	0.8	2
92	Large Eddy Simulation of Flow Past Free Surface Piercing Circular Cylinders. Journal of Fluids Engineering, Transactions of the ASME, 2008, 130, .	0.8	46
93	Computational aeroacoustics: The low speed jet. Aeronautical Journal, 2008, 112, 405-414.	1.1	7
94	Hydrodynamics and Sound Generation of Low Speed Planar Jet. Journal of Fluids Engineering, Transactions of the ASME, 2008, 130, .	0.8	1
95	Influence of the position of crew members on aerodynamics performance of two-man bobsleigh. Journal of Biomechanics, 2006, 39, 2733-2742.	0.9	54
96	Nasal Airflow in a Realistic Anatomic Geometry. , 2006, , 423-430.		0
97	Basic Sound Radiation from Low Speed Coaxial Jets. , 2006, , 497-504.		0
98	A second look at the role of the fast Fourier transform as an elliptic solver. International Journal for Numerical Methods in Fluids, 2005, 48, 909-927.	0.9	7
99	On three-dimensionality and control of incompressible cavity flow. Physics of Fluids, 2005, 17, 104103.	1.6	33
100	Sound Generation by Vortex Pairing in Subsonic Axisymmetric Jets. AIAA Journal, 2004, 42, 241-248.	1.5	19
101	On the computation of sound in free and wall-bounded domains. Journal of Sound and Vibration, 2004, 270, 483-494.	2.1	5
102	Direct computation and aeroacoustic modelling of a subsonic axisymmetric jet. Journal of Sound and Vibration, 2004, 270, 525-538.	2.1	10
103	Sound Scattering by Time-Developing Mixing Layers. , 2004, , .		0
104	Basic Sound Radiation from Large Scale Structures in Circular and Elliptical Jets. , 2004, , .		0
105	OPTIMIZED DIFFERENTIATION SCHEMES ON NON-UNIFORM GRIDS FOR COMPUTATIONAL AEROACOUSTICS. Journal of Computational Acoustics, 2002, 10, 195-209.	1.0	0
106	Stretched Cartesian grids for solution of the incompressible Navier-Stokes equations. International Journal for Numerical Methods in Fluids, 2000, 33, 897-918.	0.9	15
107	Calculation of Basic Sound Radiation of Axisymmetric Jets by Direct Numerical Simulations. AIAA Journal, 1999, 37, 161-168.	1.5	20
108	Compressible Subgrid Models for Large Eddy Simulations of Cold and Hot Mixing Layers. ERCOFTAC Series, 1999, , 175-188.	0.1	2

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109	Calculation of basic sound radiation of axisymmetric jets by direct numerical simulations. AIAA Journal, 1999, 37, 161-168.	1.5	4
110	Mach Wave Radiation by Mixing Layers. Part I: Analysis of the Sound Field. Theoretical and Computational Fluid Dynamics, 1998, 12, 73-90.	0.9	50
111	Mach Wave Radiation by Mixing Layers. Part II: Analysis of the Source Field. Theoretical and Computational Fluid Dynamics, 1998, 12, 91-108.	0.9	7
112	On an inverse problem of ship-induced internal waves. Ocean Engineering, 1998, 26, 99-110.	1.9	4
113	Calculation of basic radiation by direct numerical simulation of an axisymmetric jet. , 1998, , .		1
114	Box-Length Requirements for Simulation of Sound from Large Structures in Jets. AIAA Journal, 1997, 35, 912-915.	1.5	6
115	A NOTE ON THE STRUCTURE OF THE ACOUSTIC FIELD EMITTED BY A WAVE PACKET. Journal of Sound and Vibration, 1997, 204, 533-539.	2.1	16
116	Sound generation using data from direct numerical simulations of mixing layers. , 1996, , .		8
117	Asymmetric instability of a viscid capillary jet in an inviscid media. Physics of Fluids, 1995, 7, 1162-1164.	1.6	22
118	On the Determination of Density Profiles in Stratified Seas from Kinematical Patterns of Ship-Induced Internal Waves. Journal of Ship Research, 1994, 38, 308-318.	0.5	4
119	Numerical Investigation of Surface Curvature Effects on Aerofoil Aerodynamic Performance. Applied Mechanics and Materials, 0, 798, 589-595.	0.2	5
120	Effect of in-service burnout effect on the transonic leakage flows over cavity tip model. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 0, , 095765092110121.	0.8	1