

# Jung-Hee Seo

## List of Publications by Year in descending order

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70  
papers

2,363  
citations

279701

23  
h-index

214721

47  
g-index

73  
all docs

73  
docs citations

73  
times ranked

2344  
citing authors

#	ARTICLE	IF	CITATIONS
1	The flow physics of COVID-19. <i>Journal of Fluid Mechanics</i> , 2020, 894, .	1.4	445
2	A sharp-interface immersed boundary method with improved mass conservation and reduced spurious pressure oscillations. <i>Journal of Computational Physics</i> , 2011, 230, 7347-7363.	1.9	309
3	A high-order immersed boundary method for acoustic wave scattering and low-Mach number flow-induced sound in complex geometries. <i>Journal of Computational Physics</i> , 2011, 230, 1000-1019.	1.9	172
4	Computational modeling of cardiac hemodynamics: Current status and future outlook. <i>Journal of Computational Physics</i> , 2016, 305, 1065-1082.	1.9	140
5	Linearized perturbed compressible equations for low Mach number aeroacoustics. <i>Journal of Computational Physics</i> , 2006, 218, 702-719.	1.9	134
6	Effect of the mitral valve on diastolic flow patterns. <i>Physics of Fluids</i> , 2014, 26, .	1.6	86
7	Perturbed Compressible Equations for Aeroacoustic Noise Prediction at Low Mach Numbers. <i>AIAA Journal</i> , 2005, 43, 1716-1724.	1.5	83
8	Effect of diastolic flow patterns on the function of the left ventricle. <i>Physics of Fluids</i> , 2013, 25, .	1.6	81
9	Aerodynamic noise prediction for long-span bodies. <i>Journal of Sound and Vibration</i> , 2007, 306, 564-579.	2.1	78
10	Effect of trabeculae and papillary muscles on the hemodynamics of the left ventricle. <i>Theoretical and Computational Fluid Dynamics</i> , 2016, 30, 3-21.	0.9	64
11	Prediction of cavitating flow noise by direct numerical simulation. <i>Journal of Computational Physics</i> , 2008, 227, 6511-6531.	1.9	47
12	Investigation and modeling of bubble-bubble interaction effect in homogeneous bubbly flows. <i>Physics of Fluids</i> , 2010, 22, .	1.6	46
13	A computational model of blast loading on the human eye. <i>Biomechanics and Modeling in Mechanobiology</i> , 2014, 13, 123-140.	1.4	42
14	Aerodynamic investigation of three-dimensional wings in ground effect for aero-levitation electric vehicle. <i>Aerospace Science and Technology</i> , 2005, 9, 485-494.	2.5	41
15	Toward A Simulation-Based Tool for the Treatment of Vocal Fold Paralysis. <i>Frontiers in Physiology</i> , 2011, 2, 19.	1.3	40
16	A hybrid prediction method for low-subsonic turbulent flow noise. <i>Computers and Fluids</i> , 2010, 39, 1125-1135.	1.3	39
17	Flow Physics and Frequency Scaling of Sweeping Jet Fluidic Oscillators. <i>AIAA Journal</i> , 2018, 56, 2208-2219.	1.5	36
18	Kinetic Control in Assembly of Plasmid DNA/Polycation Complex Nanoparticles. <i>ACS Nano</i> , 2019, 13, 10161-10178.	7.3	35

#	ARTICLE	IF	CITATIONS
19	A coupled flow-acoustic computational study of bruits from a modeled stenosed artery. <i>Medical and Biological Engineering and Computing</i> , 2012, 50, 1025-1035.	1.6	31
20	Multiphysics computational models for cardiac flow and virtualâ€œcardiography. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2013, 29, 850-869.	1.0	31
21	Computational modeling and validation of intraventricular flow in a simple model of the left ventricle. <i>Theoretical and Computational Fluid Dynamics</i> , 2014, 28, 589-604.	0.9	31
22	Computational modelling and analysis of haemodynamics in a simple model of aorticâ€œstenosis. <i>Journal of Fluid Mechanics</i> , 2018, 851, 23-49.	1.4	30
23	A coupled chemo-fluidic computational model for thrombogenesis in infarcted left ventricles. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2016, 310, H1567-H1582.	1.5	26
24	Vortex shedding from a circular cylinder in shear-thinning Carreau fluids. <i>Physics of Fluids</i> , 2019, 31, .	1.6	26
25	Fluidâ€œstructure interaction solver for compressible flows with applications to blast loading on thin elastic structures. <i>Applied Mathematical Modelling</i> , 2017, 52, 470-492.	2.2	24
26	Estimating coronary blood flow using CT transluminal attenuation flow encoding: Formulation, preclinical validation, and clinical feasibility. <i>Journal of Cardiovascular Computed Tomography</i> , 2015, 9, 559-566.e1.	0.7	20
27	A method for the computational modeling of the physics of heart murmurs. <i>Journal of Computational Physics</i> , 2017, 336, 546-568.	1.9	20
28	The E-wave propagation index (EPI): A novel echocardiographic parameter for prediction of left ventricular thrombus. Derivation from computational fluid dynamic modeling and validation on human subjects. <i>International Journal of Cardiology</i> , 2017, 227, 662-667.	0.8	20
29	Mechanism and scaling of wing tone generation in mosquitoes. <i>Bioinspiration and Biomimetics</i> , 2020, 15, 016008.	1.5	20
30	A Highly Automated Computational Method for Modeling of Intracranial Aneurysm Hemodynamics. <i>Frontiers in Physiology</i> , 2018, 9, 681.	1.3	13
31	Prediction of Flat Plate Self-Noise. , 2006, , .		10
32	A computational study of the hemodynamics of bioprosthetic aortic valves with reduced leaflet motion. <i>Journal of Biomechanics</i> , 2021, 120, 110350.	0.9	10
33	Aerodynamic Noise Prediction for Long-Span Bodies. , 2006, , .		9
34	Computational Study of Computed Tomography Contrast Gradients in Models of Stenosed Coronary Arteries. <i>Journal of Biomechanical Engineering</i> , 2015, 137, .	0.6	9
35	Flow physics and mixing quality in a confined impinging jet mixer. <i>AIP Advances</i> , 2020, 10, 045105.	0.6	9
36	Computational modeling of drug dissolution in the human stomach: Effects of posture and gastroparesis on drug bioavailability. <i>Physics of Fluids</i> , 2022, 34, .	1.6	9

#	ARTICLE	IF	CITATIONS
37	A Computational Method for Analyzing the Biomechanics of Arterial Bruits. Journal of Biomechanical Engineering, 2017, 139, .	0.6	8
38	A Splitting Method for Aeroacoustic Noise Prediction of Low Mach Number Viscous Flows. International Journal of Aeroacoustics, 2005, 4, 21-36.	0.8	7
39	Computational Modeling and Analysis of Sweeping Jet Fluidic Oscillators. , 2017, , .		7
40	A graph-partitioned sharp-interface immersed boundary solver for efficient solution of internal flows. Journal of Computational Physics, 2019, 386, 37-46.	1.9	7
41	Flow Dynamics in the Aortic Arch and Its Effect on the Arterial Input Function in Cardiac Computed Tomography. Journal of Biomechanical Engineering, 2019, 141, .	0.6	7
42	Computational Modeling and Analysis of Murmurs Generated by Modeled Aortic Stenoses. Journal of Biomechanical Engineering, 2019, 141, .	0.6	7
43	Flow physics of normal and abnormal bioprosthetic aortic valves. International Journal of Heat and Fluid Flow, 2020, 86, 108740.	1.1	6
44	Prosthetic Valve Monitoring via In Situ Pressure Sensors: In Silico Concept Evaluation using Supervised Learning. Cardiovascular Engineering and Technology, 2022, 13, 90-103.	0.7	6
45	Mosquitoes buzz and fruit flies donâ€™t-a comparative aeroacoustic analysis of wing-tone generation. Bioinspiration and Biomimetics, 2021, 16, 046019.	1.5	6
46	A Highly Scalable Sharp-Interface Immersed Boundary Method for Large-Scale Parallel Computers. , 2017, , .		5
47	Computational Modeling of Drug Dissolution in the Human Stomach. Frontiers in Physiology, 2021, 12, 755997.	1.3	5
48	Mechanical design, instrumentation and measurements from a hemoacoustic cardiac phantom. , 2015, , .		4
49	Mapping the cardiac acoustome: An overview of technologies, tools and methods. , 2015, , .		3
50	Effect of intravenous infusion of iodinated contrast media on the coronary blood flow in dogs. IJC Heart and Vasculature, 2016, 12, 11-14.	0.6	3
51	A method for partitioning the sources of aerodynamic loading noise in vortex dominated flows. Physics of Fluids, 2022, 34, .	1.6	3
52	Computation of Aerodynamic Sound around Complex Stationary and Moving Bodies. , 2011, , .		2
53	Poster: Matrix Decomposition Based Conjugate Gradient Solver for Poisson Equation. , 2012, , .		2
54	Response of a Laminar Separation Bubble to Zero-Net Mass Flux Actuation. , 2018, , .		2

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55	Detecting Aortic Valve Anomaly From Induced Murmurs: Insights From Computational Hemodynamic Models. <i>Frontiers in Physiology</i> , 2021, 12, 734224.	1.3	2
56	Investigation of aerodynamic instability vibration of rectangular cylinder based on energy transfer. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 2022, 220, 104825.	1.7	2
57	Direct Simulation of Cavitating Flow Noise. , 2007, , .		1
58	Computational Modeling of Aortic Stenosis With a Reduced Degree-of-Freedom Fluid-Structure Interaction Valve Model. <i>Journal of Biomechanical Engineering</i> , 2022, 144, .	0.6	1
59	A Noninvasive Assessment of Flow Based on Contrast Dispersion in Computed Tomography Angiography: A Computational and Experimental Phantom Study. <i>Journal of Biomechanical Engineering</i> , 2022, 144, .	0.6	1
60	The Linearized Perturbed Compressible Equations for Aeroacoustic Noise Prediction at Very Low Mach Numbers. , 2005, , .		0
61	A New Immersed Boundary Method for Aeroacoustic Sound Prediction around Complex Geometries. , 2010, , .		0
62	GPU-accelerated scalable solver for banded linear systems. , 2013, , .		0
63	Effect of Synthetic Jet Modulation Schemes on the Response of a Separation Bubble. , 2017, , .		0
64	Flow-Induced Flutter of Hanging Banners: Experiments and Validated Computational Models. , 2018, , .		0
65	Efficient Computation of Turbulent Flow Noise at Low Mach Numbers Via Hybrid Method. <i>Transactions of the Korean Society of Mechanical Engineers, B</i> , 2007, 31, 814-821.	0.0	0
66	Coupled Fluid-Chemical Computational Modeling of Anticoagulation Therapies in a Stented Artery. , 2015, , .		0
67	Video: Generation and Propagation of Arterial Murmurs. , 0, , .		0
68	Video: Formation of Blood Clots in the Human Heart. , 0, , .		0
69	Mitral Valve Regurgitation Murmursâ€™ Insights from Hemoacoustic Computational Modeling. <i>Fluids</i> , 2022, 7, 164.	0.8	0
70	Towards Longitudinal Monitoring of Leaflet Mobility in Prosthetic Aortic Valves via In-Situ Pressure Sensors: In-Silico Modeling and Analysis. <i>Cardiovascular Engineering and Technology</i> , 0, , .	0.7	0