

# Lei Tan

## List of Publications by Year in descending order

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77  
papers

3,210  
citations

101496  
36  
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155592  
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all docs

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docs citations

77  
times ranked

967  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tip clearance on pressure fluctuation intensity and vortex characteristic of a mixed flow pump as turbine at pump mode. <i>Renewable Energy</i> , 2018, 129, 606-615.	4.3	225
2	Symmetrical and unsymmetrical tip clearances on cavitation performance and radial force of a mixed flow pump as turbine at pump mode. <i>Renewable Energy</i> , 2018, 127, 368-376.	4.3	178
3	Theoretical model of energy performance prediction and BEP determination for centrifugal pump as turbine. <i>Energy</i> , 2019, 172, 712-732.	4.5	151
4	Dynamic mode decomposition and reconstruction of tip leakage vortex in a mixed flow pump as turbine at pump mode. <i>Renewable Energy</i> , 2020, 155, 725-734.	4.3	134
5	Spatial&#x2013;Temporal Evolution of Tip Leakage Vortex in a Mixed-Flow Pump With Tip Clearance. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2019, 141, .	0.8	107
6	Energy Performance and Flow Patterns of a Mixed-Flow Pump with Different Tip Clearance Sizes. <i>Energies</i> , 2017, 10, 191.	1.6	103
7	Numerical study on characteristics of unsteady flow in a centrifugal pump volute at partial load condition. <i>Engineering Computations</i> , 2015, 32, 1549-1566.	0.7	95
8	Numerical simulation of unsteady cavitation flow in a centrifugal pump at off-design conditions. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2014, 228, 1994-2006.	1.1	94
9	Role of blade rotational angle on energy performance and pressure fluctuation of a mixed-flow pump. <i>Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy</i> , 2017, 231, 227-238.	0.8	91
10	Cavitation&#x2013;Vortex&#x2013;Turbulence Interaction and One-Dimensional Model Prediction of Pressure for Hydrofoil ALE15 by Large Eddy Simulation. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2019, 141, .	0.8	85
11	Optimization design of a reversible pump&#x2013;turbine runner with high efficiency and stability. <i>Renewable Energy</i> , 2015, 81, 366-376.	4.3	82
12	Method of C groove on vortex suppression and energy performance improvement for a NACA0009 hydrofoil with tip clearance in tidal energy. <i>Energy</i> , 2018, 155, 448-461.	4.5	70
13	Influence of blade wrap angle on centrifugal pump performance by numerical and experimental study. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , 2014, 27, 171-177.	1.9	67
14	Dynamic mode decomposition of cavitating flow around ALE 15 hydrofoil. <i>Renewable Energy</i> , 2019, 139, 214-227.	4.3	66
15	Influence of Geometry of Inlet Guide Vanes on Pressure Fluctuations of a Centrifugal Pump. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2018, 140, .	0.8	65
16	Influence of T-shape tip clearance on performance of a mixed-flow pump. <i>Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy</i> , 2018, 232, 386-396.	0.8	64
17	Theoretical Prediction Model of Tip Leakage Vortex in a Mixed Flow Pump With Tip Clearance. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2020, 142, .	0.8	62
18	A Review of Tip Clearance in Propeller, Pump and Turbine. <i>Energies</i> , 2018, 11, 2202.	1.6	60

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19	Optimization design method of multi-stage multiphase pump based on Oseen vortex. Journal of Petroleum Science and Engineering, 2020, 184, 106532.	2.1	60
20	Influence of Prewhirl Regulation by Inlet Guide Vanes on Cavitation Performance of a Centrifugal Pump. Energies, 2014, 7, 1050-1065.	1.6	57
21	Design Method of Controllable Blade Angle and Orthogonal Optimization of Pressure Rise for a Multiphase Pump. Energies, 2018, 11, 1048.	1.6	57
22	Multiparameter and multiobjective optimization design of centrifugal pump based on orthogonal method. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2017, 231, 2569-2579.	1.1	55
23	Dynamic mode decomposition of gas-liquid flow in a rotodynamic multiphase pump. Renewable Energy, 2019, 139, 1159-1175.	4.3	55
24	Energy Performance and Radial Force of a Mixed-Flow Pump with Symmetrical and Unsymmetrical Tip Clearances. Energies, 2017, 10, 57.	1.6	51
25	Direct and inverse iterative design method for centrifugal pump impellers. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2012, 226, 764-775.	0.8	50
26	Cavitation-vibration correlation of a mixed flow pump under steady state and fast start-up conditions by experiment. Ocean Engineering, 2022, 251, 111158.	1.9	49
27	Influence of rotating speed on tip leakage vortex in a mixed flow pump as turbine at pump mode. Renewable Energy, 2020, 162, 144-150.	4.3	47
28	Methods of Decline Curve Analysis for Shale Gas Reservoirs. Energies, 2018, 11, 552.	1.6	45
29	Cavitation-Vortex-Pressure Fluctuation Interaction in a Centrifugal Pump Using Bubble Rotation Modified Cavitation Model Under Partial Load. Journal of Fluids Engineering, Transactions of the ASME, 2020, 142, .	0.8	45
30	Method of dynamic mode decomposition and reconstruction with application to a three-stage multiphase pump. Energy, 2020, 208, 118343.	4.5	44
31	Hydraulic design and pre-whirl regulation law of inlet guide vane for centrifugal pump. Science China Technological Sciences, 2010, 53, 2142-2151.	2.0	43
32	Large eddy simulation of cavitation vortex interaction and pressure fluctuation around hydrofoil ALE 15. Ocean Engineering, 2018, 163, 264-274.	1.9	42
33	Energy Performance and Pressure Fluctuation of a Multiphase Pump with Different Gas Volume Fractions. Energies, 2018, 11, 1216.	1.6	41
34	Pressure fluctuation and flow pattern of a mixed-flow pump with different blade tip clearances under cavitation condition. Advances in Mechanical Engineering, 2017, 9, 168781401769622.	0.8	40
35	Influence of Prewhirl Angle and Axial Distance on Energy Performance and Pressure Fluctuation for a Centrifugal Pump with Inlet Guide Vanes. Energies, 2017, 10, 695.	1.6	40
36	Control strategy optimization of electrolyte flow rate for all vanadium redox flow battery with consideration of pump. Renewable Energy, 2019, 133, 1445-1454.	4.3	37

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37	Cavitation flow simulation for a centrifugal pump at a low flow rate. Science Bulletin, 2013, 58, 949-952.	1.7	36
38	Influence of C groove on suppressing vortex and cavitation for a NACA0009 hydrofoil with tip clearance in tidal energy. Renewable Energy, 2020, 148, 907-922.	4.3	36
39	Blade rotation angle on energy performance and tip leakage vortex in a mixed flow pump as turbine at pump mode. Energy, 2020, 206, 118084.	4.5	36
40	Design method of controllable velocity moment and optimization of pressure fluctuation suppression for a multiphase pump. Ocean Engineering, 2021, 220, 108402.	1.9	36
41	Prediction method of impeller performance and analysis of loss mechanism for mixed-flow pump. Science China Technological Sciences, 2012, 55, 1988-1998.	2.0	34
42	Numerical investigation of influence of inlet guide vanes on unsteady flow in a centrifugal pump. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2015, 229, 3405-3416.	1.1	33
43	Investigation on Flow Characteristics of Pump-Turbine Runners With Large Blade Lean. Journal of Fluids Engineering, Transactions of the ASME, 2018, 140, .	0.8	32
44	Numerical investigation of clocking effect on a centrifugal pump with inlet guide vanes. Engineering Computations, 2016, 33, .	0.7	30
45	Method of T shape tip on energy improvement of a hydrofoil with tip clearance in tidal energy. Renewable Energy, 2020, 149, 42-54.	4.3	27
46	Influence of viscosity on energy performance and flow field of a multiphase pump. Renewable Energy, 2020, 162, 1151-1160.	4.3	27
47	Effects of meridional flow passage shape on hydraulic performance of mixed-flow pump impellers. Chinese Journal of Mechanical Engineering (English Edition), 2013, 26, 469-475.	1.9	25
48	Numerical Simulation of Cavitation in a Centrifugal Pump at Low Flow Rate. Chinese Physics Letters, 2012, 29, 014702.	1.3	23
49	Influence of axial distance on pre-whirl regulation by the inlet guide vanes for a centrifugal pump. Science China Technological Sciences, 2012, 55, 1037-1043.	2.0	22
50	Detecting SARS-CoV-2 in the Breath of COVID-19 Patients. Frontiers in Medicine, 2021, 8, 604392.	1.2	22
51	Performance Prediction and Geometry Optimization for Application of Pump as Turbine: A Review. Frontiers in Energy Research, 2022, 9, .	1.2	20
52	Turbulent flow simulation using large eddy simulation combined with characteristic-based split scheme. Computers and Fluids, 2014, 94, 161-172.	1.3	15
53	Pressure fluctuation and flow pattern of a mixed-flow pump under design and off-design conditions. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2018, 232, 2430-2440.	1.1	14
54	A review of prewhirl regulation by inlet guide vanes for compressor and pump. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2019, 233, 803-817.	0.8	13

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55	Thermal and efficiency improvements of all vanadium redox flow battery with novel main-side-tank system and slow pump shutdown. <i>Journal of Energy Storage</i> , 2020, 28, 101274.	3.9	9
56	Experiment and numerical simulation of cavitation performance on a pressure-regulating valve with different openings. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 72, 042035.	0.3	8
57	Coherent structures decomposition of the flow field in Francis turbine runner under different working conditions. <i>Renewable Energy</i> , 2022, 186, 717-729.	4.3	7
58	Full 3-D viscous optimization design of a reversible pump turbine runner. <i>IOP Conference Series: Materials Science and Engineering</i> , 2013, 52, 022014.	0.3	6
59	Controllable velocity moment and prediction model for inlet guide vanes of a centrifugal pump. <i>Engineering Computations</i> , 2018, 35, 1364-1382.	0.7	6
60	Influence of T-Shape Tip Clearance on Energy Performance and Broadband Noise for a NACA0009 Hydrofoil. <i>Energies</i> , 2019, 12, 4066.	1.6	6
61	Experiment and Numerical Simulation of Cavitation Performance for Centrifugal Pump with Inlet Guide Vane. <i>Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering</i> , 2010, 46, 177.	0.7	6
62	Correlation of drag coefficient between rising bubbles in chain. <i>Physics of Fluids</i> , 2022, 34, 043314.	1.6	4
63	Object-based classification using LiDAR-derived metrics and QuickBird imagery. , 2012, , .		3
64	Numerical Investigation on Frequency Jump of Flow Over a Cavity Using Large Eddy Simulation. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2015, 137, .	0.8	3
65	Investigation of tip leakage vortex characteristics around tip clearance in a mixed flow pump. <i>IOP Conference Series: Earth and Environmental Science</i> , 2019, 240, 032014.	0.2	3
66	Numerical prediction of performance drop due to cavitation in a centrifugal pump. , 2014, , .		2
67	Cavitation performance and flow characteristic in a centrifugal pump with inlet guide vanes. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 72, 032028.	0.3	2
68	Influence of blade angle distribution along leading edge on cavitation performance of a centrifugal pump. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 72, 032019.	0.3	2
69	Energy Performance and Radial Force of Vertical Axis Darrieus Turbine for Ocean Energy. <i>Energies</i> , 2020, 13, 5412.	1.6	2
70	A novel classification method based on texture analysis using high-resolution SAR and optical data. , 2012, , .		1
71	A study on the evolution of the instability in two model pump-turbine runners with large blade leans. <i>IOP Conference Series: Earth and Environmental Science</i> , 2019, 240, 072032.	0.2	1
72	Special Issue on "CFD Based Researches and Applications for Fluid Machinery and Fluid Device" Processes, 2021, 9, 1137.	1.3	1

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73	Object-oriented land cover classification using multi-temporal HJ-1 CCD imagery: A case study in central Shandong province, China. , 2012, , .		0
74	Numerical simulation and analysis of cavitation flows in a double suction centrifugal pump. IOP Conference Series: Materials Science and Engineering, 2015, 72, 032020.	0.3	0
75	Unstable Flow Characteristics in S-Shaped Region of Pump-Turbine Runners With Large Blade Lean. , 2017, , .		0
76	Advances in Fluid Dynamics of Turbomachinery. International Journal of Rotating Machinery, 2018, 2018, 1-2.	0.8	0
77	Influence of prewhirl angle on a centrifugal pump with inlet guide vane running at turbine mode. IOP Conference Series: Earth and Environmental Science, 2019, 240, 032013.	0.2	0