

# Wilko Rohlf

## List of Publications by Year in descending order

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Version: 2024-02-01

62  
papers

965  
citations

516561

16  
h-index

580701

25  
g-index

63  
all docs

63  
docs citations

63  
times ranked

650  
citing authors

#	ARTICLE	IF	CITATIONS
1	On the effect of electrostatic surface forces on dielectric falling films. Journal of Fluid Mechanics, 2021, 906, .	1.4	6
2	Comparison of scattering phase functions of reacting and non-reacting pulverised fuel particles. Fuel, 2021, 287, 119415.	3.4	3
3	Implementation of a CFD model for wall condensation in the presence of non-condensable gas mixtures. Applied Thermal Engineering, 2021, 187, 116546.	3.0	23
4	HeatQuiz: An app framework for game-based learning in STEM education. , 2021, , .		3
5	Physically-Derived Figure of Merit (FOM) Quantifying the Cooling Performance of Fluids in Laminar Free-Surface Jet Impingement Cooling of Electrical Components. , 2021, , .		0
6	Influence of high shear on the effective thermal conduction of spherical micro- and nanoparticle suspensions in view of particle rotation. International Journal of Heat and Mass Transfer, 2021, 175, 121251.	2.5	5
7	Spanwise structuring and rivulet formation in suspended falling liquid films. Physical Review Fluids, 2021, 6, .	1.0	2
8	ASSESSMENT OF THE INTERFACE COMPRESSION SCHEME IN THE VOLUME-OF-FLUID MODELING OF CIRCULAR HYDRAULIC JUMPS. Atomization and Sprays, 2021, 31, 21-35.	0.3	4
9	Heat transfer in the hydraulic jump region of circular free-surface liquid jets. International Journal of Heat and Mass Transfer, 2020, 146, 118823.	2.5	14
10	Predicting the orientation of magnetic microgel rods for soft anisotropic biomimetic hydrogels. Polymer Chemistry, 2020, 11, 496-507.	1.9	29
11	Physically-motivated Figure of Merit (FOM) assessing the cooling performance of fluids suitable for the direct cooling of electrical components. , 2020, , .		2
12	SMOOTH INTERFACE COMPRESSION: AN IMPROVED ALGEBRAIC VOF METHOD TO MODEL FLOWS DOMINATED BY CAPILLARY FORCES. Multiphase Science and Technology, 2020, 32, 259-293.	0.2	2
13	Hypothermic oxygenated machine perfusionâ€”Preliminary experience with endâ€”ischemic reconditioning of marginal kidney allografts. Clinical Transplantation, 2019, 33, e13673.	0.8	10
14	Role of gravity and capillary waves in the origin of circular hydraulic jumps. Physical Review Fluids, 2019, 4, .	1.0	14
15	Hypothermic Oxygenated Machine Perfusion of Extended Criteria Kidney Allografts from Brain Dead Donors: Protocol for a Prospective Pilot Study. JMIR Research Protocols, 2019, 8, e14622.	0.5	11
16	Inverse correlation between vascular endothelial growth factor back-filtration and capillary filtration pressures. Nephrology Dialysis Transplantation, 2018, 33, 1514-1525.	0.4	7
17	Prediction of two-dimensional dripping onset of a liquid film under an inclined plane. International Journal of Multiphase Flow, 2018, 104, 286-293.	1.6	19
18	Direct Single Impinging Jet Cooling of a <sc>mosfet</sc> Power Electronic Module. IEEE Transactions on Power Electronics, 2018, 33, 4224-4237.	5.4	51

#	ARTICLE	IF	CITATIONS
19	WaveMaker: The three-dimensional wave simulation tool for falling liquid films. <i>SoftwareX</i> , 2018, 7, 211-216.	1.2	8
20	The Influence of Subsurface Temperature Measurements on the Determination of Transient Wall-Side Boundary Conditions: An Analytical Tool. <i>Heat Transfer Engineering</i> , 2017, 38, 206-216.	1.2	1
21	Dynamics of falling films on the outside of a vertical rotating cylinder: waves, rivulets and dripping transitions. <i>Journal of Fluid Mechanics</i> , 2017, 832, 189-211.	1.4	24
22	A simple hydrodynamic model of a laminar free-surface jet in horizontal or vertical flight. <i>Physics of Fluids</i> , 2017, 29, .	1.6	14
23	Hot spot removal in power electronics by means of direct liquid jet cooling. , 2017, , .		7
24	Self-similarity of heat transfer characteristics in laminar submerged and free-surface slot jet impingement. <i>International Journal of Heat and Mass Transfer</i> , 2017, 104, 1341-1352.	2.5	12
25	Modelling the defrost process in complex geometries – part 2: wall-function based coupling to a multi-region CFD solver. <i>E3S Web of Conferences</i> , 2017, 22, 00064.	0.2	0
26	Modeling the defrost process in complex geometries – Part 1: Development of a one-dimensional defrost model. <i>E3S Web of Conferences</i> , 2017, 22, 00023.	0.2	0
27	Hydrodynamic waves in films flowing under an inclined plane. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	31
28	Coalescence-induced droplet jumping on superhydrophobic surfaces: Effects of droplet mismatch. <i>Physical Review Fluids</i> , 2017, 2, .	1.0	60
29	A SPIN COATING DEVICE FOR THE INVESTIGATION OF SPRAY-FILM INTERACTIONS UNDER ENGINE RELEVANT CONDITIONS. <i>Atomization and Sprays</i> , 2016, 26, 1111-1125.	0.3	3
30	Flow structures and heat transfer characteristics in arrays of submerged laminar impinging jets. <i>Proceedings in Applied Mathematics and Mechanics</i> , 2016, 16, 953-956.	0.2	6
31	Critical inclination for absolute/convective instability transition in inverted falling films. <i>Physics of Fluids</i> , 2016, 28, 044107.	1.6	28
32	Design, development, and validation of concepts for generating passive pulsation in cooling nozzles. <i>Case Studies in Thermal Engineering</i> , 2016, 7, 103-108.	2.8	2
33	Modeling reverse osmosis element design using superposition and an analogy to convective heat transfer. <i>Journal of Membrane Science</i> , 2016, 512, 38-49.	4.1	8
34	Entrance length effects on Graetz number scaling in laminar duct flows with periodic obstructions: Transport number correlations for spacer-filled membrane channel flows. <i>International Journal of Heat and Mass Transfer</i> , 2016, 97, 842-852.	2.5	14
35	FLOW STRUCTURES AND HEAT TRANSFER IN SUBMERGED LAMINAR JET IMPINGEMENT. , 2016, , .		7
36	Experimental investigation of thermal structures in regular three-dimensional falling films. <i>European Physical Journal: Special Topics</i> , 2015, 224, 355-368.	1.2	14

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37	Phase diagram for the onset of circulating waves and flow reversal in inclined falling films. <i>Journal of Fluid Mechanics</i> , 2015, 763, 322-351.	1.4	25
38	On the stabilizing effect of a liquid film on a cylindrical core by oscillatory motions. <i>Physics of Fluids</i> , 2014, 26, .	1.6	9
39	Multi-commodity real options analysis of power plant investments: discounting endogenous risk structures. <i>Energy Systems</i> , 2014, 5, 423-447.	1.8	16
40	Influence of micro-scale aspects and jet-to-jet interaction on free-surface liquid jet impingement for micro-jet array cooling. , 2014, , .		4
41	Optimal investment strategies in power generation assets: The role of technological choice and existing portfolios in the deployment of low-carbon technologies. <i>International Journal of Greenhouse Gas Control</i> , 2014, 28, 114-125.	2.3	18
42	Influence of viscous flow relaxation time on self-similarity in free-surface jet impingement. <i>International Journal of Heat and Mass Transfer</i> , 2014, 78, 435-446.	2.5	22
43	Direct numerical simulations of a thin liquid film coating an axially oscillating cylindrical surface. <i>Fluid Dynamics Research</i> , 2014, 46, 041402.	0.6	4
44	Three-dimensional flow structures in laminar falling liquid films. <i>Journal of Fluid Mechanics</i> , 2014, 743, 75-123.	1.4	31
45	Influence of Local Flow Acceleration on the Heat Transfer of Submerged and Free-surface Jet Impingement. , 2014, , .		5
46	Flow Structures and Heat Transfer in Submerged and Free Laminar Jets. , 2014, , .		10
47	Experimental investigation of 3-dimensional wavy liquid films under the coupled influence of thermo-capillary and electrostatic forces. <i>European Physical Journal: Special Topics</i> , 2013, 219, 111-119.	1.2	4
48	Modeling of wave modes on a vertical film of a viscous ferromagnetic fluid flowing down a cylindrical electric conductor. <i>Physics of Fluids</i> , 2013, 25, 092101.	1.6	2
49	Assessment of clean-coal strategies: The questionable merits of carbon capture-readiness. <i>Energy</i> , 2013, 52, 27-36.	4.5	20
50	Investment Decisions Under Uncertainty: CCS Competing with Green Energy Technologies. <i>Energy Procedia</i> , 2013, 37, 7029-7038.	1.8	18
51	Development of Heat Transfer in a Two-Dimensional Wavy Falling Film of Water and its Influence on Wave Stability. , 2013, , .		0
52	Challenges in the Evaluation of Ultra-Long-Lived Projects: Risk Premia for Projects with Eternal Returns or Costs. <i>SSRN Electronic Journal</i> , 2013, , .	0.4	36
53	Insights into the local heat transfer of a submerged impinging jet: Influence of local flow acceleration and vortex-wall interaction. <i>International Journal of Heat and Mass Transfer</i> , 2012, 55, 7728-7736.	2.5	68
54	Evaluation of the sensitivity and response of IR thermography from a transparent heater under liquid jet impingement. <i>Journal of Physics: Conference Series</i> , 2012, 395, 012083.	0.3	0

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55	Experimental investigation into three-dimensional wavy liquid films under the influence of electrostatic forces. <i>Experiments in Fluids</i> , 2012, 53, 1045-1056.	1.1	11
56	Local heat transfer coefficient measurement through a visibly-transparent heater under jet-impingement cooling. <i>International Journal of Heat and Mass Transfer</i> , 2012, 55, 6410-6424.	2.5	32
57	Two-phase electrohydrodynamic simulations using a volume-of-fluid approach: A comment. <i>Journal of Computational Physics</i> , 2012, 231, 4454-4463.	1.9	14
58	Multi-Commodity Real Options Analysis of Power Plant Investments: Discounting Endogenous Risk Structures. <i>SSRN Electronic Journal</i> , 2011, , .	0.4	11
59	Valuation of CCS-ready coal-fired power plants: a multi-dimensional real options approach. <i>Energy Systems</i> , 2011, 2, 243-261.	1.8	37
60	Assessment of Clean-Coal Strategies: The Questionable Merits of Carbon Capture-Readiness. <i>SSRN Electronic Journal</i> , 0, , .	0.4	52
61	Cost Effectiveness of Carbon Capture-Ready Coal Power Plants with Delayed Retrofit. <i>SSRN Electronic Journal</i> , 0, , .	0.4	37
62	Optimal Power Generation Investment: Impact of Technology Choices and Existing Portfolios for Deploying Low-Carbon Coal Technologies. <i>SSRN Electronic Journal</i> , 0, , .	0.4	35