

Karen A Thole

List of Publications by Year in descending order

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110
papers

3,508
citations

136940

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155644

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docs citations

110
times ranked

1148
citing authors

#	ARTICLE	IF	CITATIONS
1	Convection in Scaled Turbine Internal Cooling Passages With Additive Manufacturing Roughness. Journal of Turbomachinery, 2022, 144, .	1.7	2
2	Impact of Ceramic Matrix Composite Topology on Friction Factor and Heat Transfer. Journal of Turbomachinery, 2022, 144, .	1.7	2
3	Influence of Vane Trailing Edge Flow on the Formation of Cavity Cells and Rim Sealing. Journal of Turbomachinery, 2022, 144, .	1.7	3
4	Acquisition and Processing Considerations for Infrared Images of Rotating Turbine Blades. Journal of Turbomachinery, 2021, 143, .	1.7	7
5	Effects of Jet Impingement on Convective Heat Transfer in Effusion Holes. Journal of Turbomachinery, 2021, 143, .	1.7	4
6	Experimental Heat Transfer and Boundary Layer Measurements on a Ceramic Matrix Composite Surface. Journal of Turbomachinery, 2021, 143, .	1.7	5
7	Impact of Additive Manufacturing on Internal Cooling Channels With Varying Diameters and Build Directions. Journal of Turbomachinery, 2021, 143, .	1.7	14
8	Defining a Testbed for the U.S. Turbine Industry: The National Experimental Turbine (NExT). , 2021, , .		2
9	Review of advances in convective heat transfer developed through additive manufacturing. Advances in Heat Transfer, 2021, 53, 249-325.	0.9	11
10	Comparison of Thin Film Heat Flux Gauge Technologies Emphasizing Continuous-Duration Operation. Journal of Turbomachinery, 2020, 142, .	1.7	11
11	Effect of Additive Manufacturing Process Parameters on Turbine Cooling. Journal of Turbomachinery, 2020, 142, .	1.7	14
12	Performance of Public Film Cooling Geometries Produced Through Additive Manufacturing. Journal of Turbomachinery, 2020, 142, .	1.7	9
13	Understanding Laser Powder Bed Fusion Surface Roughness. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2020, 142, .	2.2	74
14	Tailoring Surface Roughness Using Additive Manufacturing to Improve Internal Cooling. Journal of Turbomachinery, 2020, 142, .	1.7	25
15	Evaluating the Effect of Vane Trailing Edge Flow on Turbine Rim Sealing. Journal of Turbomachinery, 2020, 142, .	1.7	6
16	Scaling Sealing Effectiveness in a Statorâ€“Rotor Cavity for Differing Blade Spans. Journal of Turbomachinery, 2019, 141, .	1.7	12
17	Experimental Investigation of Numerically Optimized Wavy Microchannels Created Through Additive Manufacturing. Journal of Turbomachinery, 2018, 140, .	1.7	23
18	Effectiveness Measurements of Additively Manufactured Film Cooling Holes. Journal of Turbomachinery, 2018, 140, .	1.7	27

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19	Effects of Geometry, Spacing, and Number of Pin Fins in Additively Manufactured Microchannel Pin Fin Arrays. <i>Journal of Turbomachinery</i> , 2018, 140, .	1.7	54
20	Numerical Optimization, Characterization, and Experimental Investigation of Additively Manufactured Communicating Microchannels. <i>Journal of Turbomachinery</i> , 2018, 140, .	1.7	11
21	Effects of Coolant Feed Direction on Additively Manufactured Film Cooling Holes. <i>Journal of Turbomachinery</i> , 2018, 140, .	1.7	18
22	Effects of Purge Flow Configuration on Sealing Effectiveness in a Rotor-“Stator Cavity. <i>Journal of Engineering for Gas Turbines and Power</i> , 2018, 140, .	1.1	20
23	Pressure loss and heat transfer performance for additively and conventionally manufactured pin fin arrays. <i>International Journal of Heat and Mass Transfer</i> , 2017, 108, 2502-2513.	4.8	93
24	Heat Transfer and Pressure Loss Measurements in Additively Manufactured Wavy Microchannels. <i>Journal of Turbomachinery</i> , 2017, 139, .	1.7	65
25	Scaling Roughness Effects on Pressure Loss and Heat Transfer of Additively Manufactured Channels. <i>Journal of Turbomachinery</i> , 2017, 139, .	1.7	104
26	Thermal Field Measurements for a Shaped Hole at Low and High Freestream Turbulence Intensity. <i>Journal of Turbomachinery</i> , 2017, 139, .	1.7	13
27	Effect of In-Hole Roughness on Film Cooling From a Shaped Hole. <i>Journal of Turbomachinery</i> , 2017, 139, .	1.7	23
28	Heat Transfer and Film Cooling on a Contoured Blade Endwall With Platform Gap Leakage. <i>Journal of Turbomachinery</i> , 2017, 139, .	1.7	13
29	Effects of Geometry and Spacing in Additively Manufactured Microchannel Pin Fin Arrays. , 2017, , .		1
30	Effect of High Freestream Turbulence on Flowfields of Shaped Film Cooling Holes. <i>Journal of Turbomachinery</i> , 2016, 138, .	1.7	54
31	Overall Effectiveness and Flowfield Measurements for an Endwall With Nonaxisymmetric Contouring. <i>Journal of Turbomachinery</i> , 2016, 138, .	1.7	20
32	Comparison of the Three-Dimensional Boundary Layer on Flat Versus Contoured Turbine Endwalls. <i>Journal of Turbomachinery</i> , 2016, 138, .	1.7	15
33	Roughness Effects on Flow and Heat Transfer for Additively Manufactured Channels. <i>Journal of Turbomachinery</i> , 2016, 138, .	1.7	160
34	Effects of non-axisymmetric endwall contouring and film cooling on the passage flowfield in a linear turbine cascade. <i>Experiments in Fluids</i> , 2016, 57, 1.	2.4	51
35	Blockage Effects From Simulated Thermal Barrier Coatings for Cylindrical and Shaped Cooling Holes. <i>Journal of Turbomachinery</i> , 2015, 137, .	1.7	23
36	Heat Transfer Measurements of Oblong Pins. <i>Journal of Turbomachinery</i> , 2015, 137, .	1.7	8

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37	Simulations of Multiphase Particle Deposition on a Gas Turbine Endwall With Impingement and Film Cooling. <i>Journal of Turbomachinery</i> , 2015, 137, .	1.7	14
38	Conjugate heat transfer analysis of the effects of impingement channel height for a turbine blade endwall. <i>International Journal of Heat and Mass Transfer</i> , 2015, 82, 66-77.	4.8	40
39	Film Cooling. , 2014, , 223-273.		0
40	Overall Effectiveness of a Blade Endwall With Jet Impingement and Film Cooling. <i>Journal of Engineering for Gas Turbines and Power</i> , 2014, 136, .	1.1	60
41	Conjugate Heat Transfer Measurements and Predictions of a Blade Endwall With a Thermal Barrier Coating. <i>Journal of Turbomachinery</i> , 2014, 136, .	1.7	36
42	Row Removal Heat Transfer Study for Pin Fin Arrays. , 2014, , .		7
43	Comparison of Pin Surface Heat Transfer in Arrays of Oblong and Cylindrical Pin Fins. <i>Journal of Turbomachinery</i> , 2014, 136, .	1.7	19
44	Time-Resolved Film-Cooling Flows at High and Low Density Ratios. <i>Journal of Turbomachinery</i> , 2014, 136, .	1.7	58
45	Manufacturing Influences on Pressure Losses of Channel Fed Holes. <i>Journal of Turbomachinery</i> , 2014, 136, .	1.7	1
46	Heat Transfer Measurements of Oblong Pins. , 2014, , .		0
47	Performance Measurements of a Unique Louver Particle Separator for Gas Turbine Engines. <i>Journal of Engineering for Gas Turbines and Power</i> , 2013, 135, .	1.1	5
48	Impact of the Combustor-Turbine Interface Slot Orientation on the Durability of a Nozzle Guide Vane Endwall. <i>Journal of Turbomachinery</i> , 2013, 135, .	1.7	10
49	Aerodynamic Loss for a Turbine Blade With Endwall Leakage Features and Contouring. , 2013, , .		5
50	Endwall Heat Transfer for a Turbine Blade With an Upstream Cavity and Rim Seal Leakage. , 2013, , .		5
51	Simulations of Multiphase Particle Deposition on a Nonaxisymmetric Contoured Endwall With Film-Cooling. <i>Journal of Turbomachinery</i> , 2013, 135, .	1.7	14
52	Characterization of Flow Through Porous Metals. , 2013, , .		0
53	Comparison of Pin Surface Heat Transfer in Arrays of Oblong and Cylindrical Pin Fins. , 2013, , .		0
54	Overall Effectiveness of a Blade Endwall With Jet Impingement and Film Cooling. , 2013, , .		4

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55	Effects of Non-Uniform Streamwise Spacing in Low Aspect Ratio Pin Fin Arrays. , 2013, , .		10
56	Flowfield Measurements in a Single Row of Low Aspect Ratio Pin Fins. Journal of Turbomachinery, 2012, 134, .	1.7	22
57	Simulations of Multiphase Particle Deposition on Endwall Film-Cooling. Journal of Turbomachinery, 2012, 134, .	1.7	9
58	Simulations of Multiphase Particle Deposition on a Showerhead With Staggered Film-Cooling Holes. Journal of Turbomachinery, 2012, 134, .	1.7	12
59	Simulations of Multi-Phase Particle Deposition on a Non-Axisymmetric Contoured Endwall With Film-Cooling. , 2012, , .		1
60	Simulations of Multiphase Particle Deposition on Endwall Film-Cooling Holes in Transverse Trenches. Journal of Turbomachinery, 2012, 134, .	1.7	7
61	Effects of Varying Streamwise and Spanwise Spacing in Pin-Fin Arrays. , 2012, , .		19
62	Effect of streamwise spacing on periodic and random unsteadiness in a bundle of short cylinders confined in a channel. Experiments in Fluids, 2012, 53, 1779-1796.	2.4	10
63	Wake development in staggered short cylinder arrays within a channel. Experiments in Fluids, 2012, 53, 673-697.	2.4	42
64	Performance Measurements of a Unique Louver Particle Separator for Gas Turbine Engines. , 2012, , .		1
65	Influence of flow injection angle on a leading-edge horseshoe vortex. International Journal of Heat and Mass Transfer, 2012, 55, 4651-4664.	4.8	29
66	Heat Transfer for a Turbine Blade With Nonaxisymmetric Endwall Contouring. Journal of Turbomachinery, 2011, 133, .	1.7	46
67	Flowfield Measurements in a Single Row of Low Aspect Ratio Pin-Fins. , 2011, , .		3
68	The Effect of the Combustor-Turbine Slot and Midpassage Gap on Vane Endwall Heat Transfer. Journal of Turbomachinery, 2011, 133, .	1.7	31
69	Developing and fully developed turbulent flow in ribbed channels. Experiments in Fluids, 2011, 50, 1357-1371.	2.4	40
70	Heat transfer from multiple row arrays of low aspect ratio pin fins. International Journal of Heat and Mass Transfer, 2011, 54, 4099-4109.	4.8	106
71	A multi-parametric particle-pairing algorithm for particle tracking in single and multiphase flows. Measurement Science and Technology, 2011, 22, 105406.	2.6	44
72	Computational Predictions of Heat Transfer and Film-Cooling for a Turbine Blade With Nonaxisymmetric Endwall Contouring. Journal of Turbomachinery, 2011, 133, .	1.7	39

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73	Heat Transfer From Low Aspect Ratio Pin Fins. Journal of Turbomachinery, 2011, 133, .	1.7	42
74	Computational Study of a Midpassage Gap and Upstream Slot on Vane Endwall Film-Cooling. Journal of Turbomachinery, 2011, 133, .	1.7	19
75	A Film-Cooling Correlation for Shaped Holes on a Flat-Plate Surface. Journal of Turbomachinery, 2011, 133, .	1.7	81
76	Simulations of Multi-Phase Particle Deposition on Endwall Film-Cooling Holes in Transverse Trenches. , 2011, , .		3
77	Simulations of Multi-Phase Particle Deposition on a Showerhead With Staggered Film-Cooling Holes. , 2011, , .		1
78	Establishing a Methodology for Resolving Convective Heat Transfer From Complex Geometries. Journal of Turbomachinery, 2010, 132, .	1.7	3
79	Considerations of a Double-Wall Cooling Design to Reduce Sand Blockage. Journal of Turbomachinery, 2010, 132, .	1.7	11
80	A Methodology to Measure Aerodynamic Forces on Cylinders in Channel Flow. Journal of Fluids Engineering, Transactions of the ASME, 2010, 132, .	1.5	0
81	Computational Predictions of Heat Transfer and Film-Cooling for a Turbine Blade With Non-Axisymmetric Endwall Contouring. , 2010, , .		0
82	Simulations of Multi-Phase Particle Deposition on Endwall Film-Cooling. , 2010, , .		6
83	Ambassador program for recruiting girls into engineering―appropriate messages, messengers, and modes of delivery. , 2010, , .		3
84	The Effect of the Combustor-Turbine Slot and Mid-Passage Gap on Vane Endwall Heat Transfer. , 2009, , .		0
85	Effects of Large Scale High Freestream Turbulence and Exit Reynolds Number on Turbine Vane Heat Transfer in a Transonic Cascade. Journal of Turbomachinery, 2009, 131, .	1.7	42
86	Computational Design of a Louver Particle Separator for Gas Turbine Engines. , 2009, , .		10
87	Heat Transfer for a Turbine Blade With Non-Axisymmetric Endwall Contouring. , 2009, , .		10
88	Heat transfer augmentation along the tube wall of a louvered fin heat exchanger using practical delta winglets. International Journal of Heat and Mass Transfer, 2008, 51, 2346-2360.	4.8	51
89	A Film-Cooling Correlation for Shaped Holes on a Flat-Plate Surface. , 2008, , .		4
90	Considerations of a Double-Wall Cooling Design to Reduce Sand Blockage. , 2008, , .		8

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91	Heat Transfer From Low Aspect Ratio Pin Fins. , 2007, , 413.		13
92	Gas Turbine Film Cooling. Journal of Propulsion and Power, 2006, 22, 249-270.	2.2	670
93	Computational and Experimental Comparison of Tube Wall Heat Transfer Augmented by Winglets in Louvered Fin Heat Exchangers. , 2006, , 681.		1
94	Computational Study of a Midpassage Gap and Upstream Slot on Vane Endwall Film-Cooling. , 2006, , 839.		18
95	Effects of winglets to augment tube wall heat transfer in louvered fin heat exchangers. International Journal of Heat and Mass Transfer, 2006, 49, 4058-4069.	4.8	49
96	Experimental validation of large eddy simulations of flow and heat transfer in a stationary ribbed duct. International Journal of Heat and Fluid Flow, 2006, 27, 243-258.	2.4	100
97	Adiabatic Effectiveness Measurements of Endwall Film-Cooling for a First-Stage Vane. Journal of Turbomachinery, 2005, 127, 297-305.	1.7	99
98	Heat transfer and film-cooling for the endwall of a first stage turbine vane. International Journal of Heat and Mass Transfer, 2005, 48, 5255-5269.	4.8	72
99	Thermal Design and Optimization Methodology for Integrated Power Electronics Modules. Journal of Electronic Packaging, Transactions of the ASME, 2005, 127, 59-66.	1.8	9
100	Flow Field Computations of Combustor-Turbine Interactions Relevant to a Gas Turbine Engine. Journal of Turbomachinery, 2004, 126, 122-129.	1.7	29
101	Computational Predictions of Endwall Film-Cooling for a First Stage Vane. , 2003, , 163.		30
102	Optimizing the Vane-Endwall Junction to Reduce Adiabatic Wall Temperatures in a Turbine Vane Passage. , 2003, , 711.		9
103	Flow Field Computations of Combustor-Turbine Interactions Relevant to a Gas Turbine Engine. , 2003, , .		10
104	Computational Design and Experimental Evaluation of Using a Leading Edge Fillet on a Gas Turbine Vane. Journal of Turbomachinery, 2002, 124, 167-175.	1.7	75
105	Electrical and Thermal Layout Design and Optimization Considerations for DPS Active IPEM. , 2002, , 253.		17
106	Full-Coverage Film Cooling With Short Normal Injection Holes. Journal of Turbomachinery, 2001, 123, 798-805.	1.7	81
107	Effect of Inlet Conditions on Endwall Secondary Flows. Journal of Propulsion and Power, 2000, 16, 286-296.	2.2	61
108	Flowfield Measurements for a Highly Turbulent Flow in a Stator Vane Passage. Journal of Turbomachinery, 2000, 122, 255-262.	1.7	59

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109	Entry region of louvered fin heat exchangers. <i>Experimental Thermal and Fluid Science</i> , 1999, 19, 223-232.	2.7	25
110	Experimental design for flowfield studies of louvered fins. <i>Experimental Thermal and Fluid Science</i> , 1998, 18, 258-269.	2.7	41