

Meelan M Choudhari

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/1974258/meelan-m-choudhari-publications-by-year.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

182
papers

3,053
citations

32
h-index

44
g-index

212
ext. papers

3,952
ext. citations

2.6
avg, IF

5.47
L-index

#	Paper	IF	Citations
182	Recurrent neural network for end-to-end modeling of laminar-turbulent transition. <i>Data-Centric Engineering</i> , 2021 , 2,	2.6	2
181	Assessment of RANS-based Transition Models based on Experimental Data of the Common Research Model with Natural Laminar Flow 2021 ,		3
180	Simulation and Modeling of Hypersonic Turbulent Boundary Layers Subject to Favorable Pressure Gradients due to Streamline Curvature 2021 ,		2
179	Direct Numerical Simulations of Acoustic Disturbances in Various Rectangular Nozzle Configurations 2020 ,		2
178	Mechanism for frustum transition over blunt cones at hypersonic speeds. <i>Journal of Fluid Mechanics</i> , 2020 , 894,	3.7	16
177	Shape Optimization of Vortex Generators to Control Mack Mode Amplification 2020 ,		1
176	Slat Noise Control Using a Slat Gap Filler 2020 ,		1
175	Streak Instability Analysis on BOLT Configuration 2020 ,		3
174	Streak Instabilities on HIFiRE-5 Elliptic Cone 2020 ,		5
173	Convolutional neural network for transition modeling based on linear stability theory. <i>Physical Review Fluids</i> , 2020 , 5,	2.8	8
172	Assessment of Transition Modeling Capability in OVERFLOW with Emphasis on Swept-Wing Configurations 2020 ,		1
171	Toward Transition Modeling in a Hypersonic Boundary Layer at Flight Conditions 2020 ,		1
170	Simulation and Modeling of Cold-Wall Hypersonic Turbulent Boundary Layers on Flat Plate 2020 ,		3
169	Predicting Boundary-Layer Transition over Backward-Facing Steps via Linear Stability Analysis. <i>AIAA Journal</i> , 2020 , 58, 3728-3734	2.1	2
168	Toward a Practical Method for Hypersonic Transition Prediction Based on Stability Correlations. <i>AIAA Journal</i> , 2020 , 58, 4475-4484	2.1	3
167	Nonmodal Growth of Traveling Waves on Blunt Cones at Hypersonic Speeds. <i>AIAA Journal</i> , 2019 , 57, 4738-4749	2.1	15
166	Laminar-Turbulent Transition Upstream of the Entropy-Layer Swallowing Location in Hypersonic Boundary Layers 2019 ,		5

165	Numerical Investigation of Roughness Effects on Transition on Spherical Capsules. <i>Journal of Spacecraft and Rockets</i> , 2019 , 56, 388-404	1.5	6
164	Assessment of Aeroacoustic Simulations of the High-Lift Common Research Model 2019 ,		1
163	Nonlinear Görtler Vortices and Their Secondary Instability in a Hypersonic Boundary Layer 2019 ,		4
162	Effect of Surface Roughness on Boundary Layer Transition and Far Field Noise 2019 ,		3
161	Instability wave-streak interactions in a hypersonic boundary layer at flight conditions. <i>Journal of Fluid Mechanics</i> , 2019 , 858, 474-499	3.7	7
160	Nonmodal Growth of Traveling Waves on Blunt Cones at Hypersonic Speeds 2019 ,		1
159	Nose-Tip Bluntness Effects on Transition at Hypersonic Speeds. <i>Journal of Spacecraft and Rockets</i> , 2019 , 56, 369-387	1.5	22
158	Influence of a Backward-Facing Step on Swept-Wing Boundary-Layer Transition. <i>AIAA Journal</i> , 2019 , 57, 267-278	2.1	6
157	Characterization of Freestream Disturbances in Conventional Hypersonic Wind Tunnels. <i>Journal of Spacecraft and Rockets</i> , 2019 , 56, 357-368	1.5	21
156	Nosetip bluntness effects on transition at hypersonic speeds: experimental and numerical analysis under NATO STO AVT-240 2018 ,		9
155	Numerical Investigation of Roughness Effects on Transition on Spherical Capsules 2018 ,		4
154	Nonlinear Evolution and Breakdown of Azimuthally Compact Crossflow Vortex Pattern over a Yawed Cone 2018 ,		5
153	Characterization of Freestream Disturbances in Conventional Hypersonic Wind Tunnels 2018 ,		5
152	Interaction of a Backward-Facing Step and Crossflow Instabilities in Boundary-Layer Transition. <i>AIAA Journal</i> , 2018 , 56, 497-509	2.1	10
151	Transition Delay via Vortex Generators in a Hypersonic Boundary Layer at Flight Conditions 2018 ,		3
150	Blunt body paradox and improved application of transient growth framework. <i>AIAA Journal</i> , 2018 , 56, 2604-2614	2.1	7
149	Direct Numerical Simulation Database for Hypersonic Turbulent Boundary Layers. <i>AIAA Journal</i> , 2018 , 56, 4297-4311	2.1	44
148	Direct Numerical Simulation of Acoustic Disturbances in the Rectangular Test Section of a Hypersonic Wind Tunnel 2018 ,		3

147	Effect of Distributed Patch of Smooth Roughness Elements on Transition in a High-Speed Boundary Layer 2018 ,		3
146	Görtler Instability and Its Control via Surface Suction Over an Axisymmetric Cone at Mach 6 2018 ,		5
145	Assessment of Noise Reduction Concepts for Leading-Edge Slat Noise 2018 ,		4
144	Transient Growth and Streak Instabilities on a Hypersonic Blunt Body 2017 ,		3
143	Direct Numerical Simulation of Hypersonic Turbulent Boundary Layers inside an Axisymmetric Nozzle 2017 ,		4
142	Stabilization of hypersonic boundary layers by linear and nonlinear optimal perturbations 2017 ,		4
141	Noise Simulations of the High-Lift Common Research Model 2017 ,		6
140	Effect of wall cooling on boundary-layer-induced pressure fluctuations at Mach 6. <i>Journal of Fluid Mechanics</i> , 2017 , 822, 5-30	3-7	28
139	Computations of Crossflow Instability in Hypersonic Boundary Layers 2017 ,		7
138	Instability wave-streak interactions in a supersonic boundary layer. <i>Journal of Fluid Mechanics</i> , 2017 , 831, 524-553	3-7	19
137	Blunt-body paradox and transient growth on a hypersonic spherical forebody. <i>Physical Review Fluids</i> , 2017 , 2,	2.8	14
136	Nonlinear Transient Growth and Boundary Layer Transition 2016 ,		7
135	Optimal Growth in Hypersonic Boundary Layers. <i>AIAA Journal</i> , 2016 , 54, 3050-3061	2.1	20
134	Influence of Stationary Crossflow Modulation on Secondary Instability 2016 ,		4
133	Transition and Turbulence 2016 , 11-1-11-43		1
132	Transient Growth Analysis of Compressible Boundary Layers with Parabolized Stability Equations 2016 ,		2
131	Control of Crossflow Transition at High Reynolds Numbers Using Discrete Roughness Elements. <i>AIAA Journal</i> , 2016 , 54, 39-52	2.1	7
130	High-frequency instabilities of stationary crossflow vortices in a hypersonic boundary layer. <i>Physical Review Fluids</i> , 2016 , 1,	2.8	29

129	Transition due to streamwise streaks in a supersonic flat plate boundary layer. <i>Physical Review Fluids</i> , 2016 , 1,	2.8	15
128	The non-reflective interface: an innovative forcing technique for computational acoustic hybrid methods. <i>International Journal for Numerical Methods in Fluids</i> , 2016 , 81, 22-44	1.9	13
127	Pressure Fluctuations induced by a Hypersonic Turbulent Boundary Layer. <i>Journal of Fluid Mechanics</i> , 2016 , 804, 578-607	3.7	52
126	Nonlinear wakes behind a row of elongated roughness elements. <i>Journal of Fluid Mechanics</i> , 2016 , 796, 516-557	3.7	9
125	Boundary-Layer Stability Analysis of the Mean Flows Obtained Using Unstructured Grids. <i>Journal of Aircraft</i> , 2015 , 52, 49-63	1.6	6
124	Assessment of Slat Noise Predictions for 30P30N High-Lift Configuration from BANC-III Workshop 2015 ,		33
123	Discrete-Roughness-Element-Enhanced Swept-Wing Natural Laminar Flow at High Reynolds Numbers. <i>AIAA Journal</i> , 2015 , 53, 2321-2334	2.1	6
122	Direct Numerical Simulation of Transition due to Traveling Crossflow Vortices 2015 ,		2
121	Transition Analysis for the Ascent Phase of HIFIRE-1 Flight Experiment. <i>Journal of Spacecraft and Rockets</i> , 2015 , 52, 1283-1293	1.5	20
120	Influence of Spanwise Boundary Conditions on Slat Noise Simulations 2015 ,		5
119	Computations of Disturbance Amplification Behind Isolated Roughness Elements and Comparison with Measurements 2015 ,		5
118	The Effect of Backward-facing Step Height on Instability Growth and Breakdown in Swept-Wing Boundary-Layer Transition 2015 ,		2
117	The Interaction of a Backward-Facing Step and Crossflow Instabilities in Boundary-Layer Transition 2015 ,		5
116	Acoustic Radiation from High-Speed Turbulent Boundary Layers in a Tunnel-like Environment 2015 ,		2
115	Pressure Gradient Effects on Supersonic Transition over Axisymmetric Bodies at Incidence. <i>AIAA Journal</i> , 2015 , 53, 3737-3751	2.1	9
114	Transition Onset Predictions for Oblique Breakdown in a Mach 3 Boundary Layer. <i>AIAA Journal</i> , 2014 , 52, 882-886	2.1	5
113	Direct Numerical Simulations of High-Speed Turbulent Boundary Layers over Riblets 2014 ,		4
112	Acoustics and Surface Pressure Measurements from Tandem Cylinder Configurations 2014 ,		3

111	An Experimental Study of Roughness-Induced Instabilities in a Supersonic Boundary Layer 2014 ,		12
110	Numerical study of acoustic radiation due to a supersonic turbulent boundary layer. <i>Journal of Fluid Mechanics</i> , 2014 , 746, 165-192	3-7	52
109	Experimental Study on Slat Noise from 30P30N Three-Element High-Lift Airfoil at JAXA Hard-Wall Low-speed Wind Tunnel 2014 ,		42
108	An Experimental Investigation of the 30P30N Multi-Element High-Lift Airfoil 2014 ,		33
107	Grid Sensitivity Study for Slat Noise Simulations 2014 ,		6
106	Analysis of Numerical Simulation Database for Acoustic Radiation from High-Speed Turbulent Boundary Layers 2014 ,		6
105	Nonlinear development and secondary instability of traveling crossflow vortices. <i>Physics of Fluids</i> , 2014 , 26, 064104	4-4	18
104	Nonlinear Development and Secondary Instability of Traveling Crossflow Vortices 2014 ,		1
103	Towards Bridging the Gaps in Holistic Transition Prediction via Numerical Simulations 2013 ,		6
102	Effects of injection on the instability of boundary layers over hypersonic configurations. <i>Physics of Fluids</i> , 2013 , 25, 104107	4-4	15
101	DRE-Enhanced Swept-Wing Natural Laminar Flow at High Reynolds Numbers 2013 ,		4
100	Direct Numerical Simulation of Transition in a Swept Wing Boundary Layer 2013 ,		4
99	Wake Instabilities behind Discrete Roughness Elements in High Speed Boundary Layers 2013 ,		22
98	Numerical Study of Pressure Fluctuations due to a Mach 6 Turbulent Boundary Layer 2013 ,		8
97	Stability Analysis for HIFiRE Experiments 2012 ,		39
96	Boundary-Layer Stability Analysis of the Mean Flows Obtained Using Unstructured Grids 2012 ,		1
95	Transition Within Leeward Plane of Axisymmetric Bodies at Incidence in Supersonic Flow 2012 ,		4
94	The Influence of Realistic Reynolds Numbers on Slat Noise Simulations 2012 ,		10

93	Effects of Riblets on Skin Friction and Heat Transfer in High-Speed Turbulent Boundary Layers 2012		6
92	Computational Modeling of Roughness-Based Laminar Flow Control on a Subsonic Swept Wing. <i>AIAA Journal</i> , 2011 , 49, 520-529	2.1	15
91	CFD-CAA Coupled Calculations of a Tandem Cylinder Configuration to Assess Facility Installation Effects 2011 ,		14
90	Effects of Cavities and Protuberances on Transition over Hypersonic Vehicles 2011 ,		14
89	Boundary Layer Transition over Blunt Hypersonic Vehicles Including Effects of Ablation-Induced Out-Gassing 2011 ,		3
88	Transition Analysis for the HIFiRe-1 Flight Experiment 2011 ,		24
87	The Variation of Slat Noise with Mach and Reynolds Numbers 2011 ,		8
86	Algebraic/transcendental disturbance growth behind a row of roughness elements. <i>Journal of Fluid Mechanics</i> , 2011 , 668, 236-266	3.7	22
85	Computational Analysis of the G-III Laminar Flow Glove 2011 ,		14
84	Algebraic/transcendental disturbance growth behind a row of roughness elements [ERRATUM]. <i>Journal of Fluid Mechanics</i> , 2011 , 671, 605-605	3.7	
83	Spatially developing secondary instabilities in compressible swept airfoil boundary layers. <i>Theoretical and Computational Fluid Dynamics</i> , 2011 , 25, 65-84	2.3	38
82	Hypersonic viscous flow over large roughness elements. <i>Theoretical and Computational Fluid Dynamics</i> , 2011 , 25, 85-104	2.3	17
81	Numerical Computations of Hypersonic Boundary-Layer over Surface Irregularities 2010 ,		18
80	Laminar-Turbulent Transition behind Discrete Roughness Elements in a High-Speed Boundary Layer 2010 ,		42
79	Excitation of Crossflow Instabilities in a Swept Wing Boundary Layer 2010 ,		10
78	The Effect of Cross Flow on Slat Noise 2010 ,		12
77	Roughness Based Crossflow Transition Control for a Swept Wing Airfoil Design 2010 ,		3
76	Detailed Comparison of DNS with PSE for Oblique Breakdown at Mach 3 2010 ,		4

75	HIFiRE-5 Flight Vehicle Design 2010 ,		37
74	Development and Breakdown of Gortler Vortices in High Speed Boundary Layers 2010 ,		21
73	Analysis of Instabilities in Non-Axisymmetric Hypersonic Boundary Layers over Cones 2010 ,		39
72	The long range persistence of wakes behind a row of roughness elements. <i>Journal of Fluid Mechanics</i> , 2010 , 644, 123-163	3.7	19
71	Computational Analysis for Roughness-Based Transition Control. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2010 , 237-242	0.3	1
70	Stability Analysis of Roughness Array Wake in a High-Speed Boundary Layer 2009 ,		24
69	Hypersonic Viscous Flow Over Large Roughness Elements 2009 ,		9
68	Noise Radiation from a Leading-Edge Slat 2009 ,		42
67	Aerodynamics of a Gulfstream G550 Nose Landing Gear Model 2009 ,		24
66	Measurements of the Flowfield Interaction Between Tandem Cylinders 2009 ,		37
65	Transition Analysis for the Mars Science Laboratory Entry Vehicle 2009 ,		11
64	Roughness Based Crossflow Transition Control: A Computational Assessment 2009 ,		7
63	Transition Analysis for the HIFiRE-5 Vehicle 2009 ,		55
62	Preliminary Analysis of Acoustic Measurements from the NASA-Gulfstream Airframe Noise Flight Test 2008 ,		33
61	Aeroacoustic Simulations of Tandem Cylinders with Subcritical Spacing 2008 ,		12
60	Spatially Developing Secondary Instabilities and Attachment Line Instability in Supersonic Boundary Layers 2008 ,		15
59	Numerical simulations of boundary-layer bypass transition due to high-amplitude free-stream turbulence. <i>Journal of Fluid Mechanics</i> , 2008 , 613, 135-169	3.7	65
58	Tandem Cylinder Noise Predictions 2007 ,		57

57	Analysis of Crossflow Transition Flight Experiment aboard Pegasus Launch Vehicle (Invited) 2007 ,		20
56	Effect of Three-Dimensional Shear-Layer Structures on Slat Cove Unsteadiness. <i>AIAA Journal</i> , 2007 , 45, 2174-2186	2.1	74
55	Unsteady Flowfield Around Tandem Cylinders as Prototype Component Interaction in Airframe Noise. <i>AIAA Journal</i> , 2007 , 45, 1930-1941	2.1	51
54	ROUGHNESS INDUCED TRANSIENT GROWTH: NONLINEAR EFFECTS. <i>Fluid Mechanics and Its Applications</i> , 2006 , 237-242	0.2	2
53	Slat Cove Unsteadiness: Effect of 3D Flow Structures 2006 ,		32
52	Measurements of Unsteady Wake Interference Between Tandem Cylinders 2006 ,		55
51	Simulations of Bluff Body Flow Interaction for Noise Source Modeling 2006 ,		14
50	Numerical Simulations of Laminar-Turbulent Transition In Supersonic Boundary Layer 2006 ,		20
49	Numerical simulations of boundary-layer transition induced by a cylinder wake. <i>Journal of Fluid Mechanics</i> , 2006 , 547, 413	3.7	29
48	Roughness-Induced Transient Growth 2005 ,		34
47	Characterization of Unsteady Flow Structures Around Tandem Cylinders for Component Interaction Studies in Airframe Noise 2005 ,		55
46	Unsteady Flowfield Around Tandem Cylinders as Prototype for Component Interaction in Airframe Noise 2005 ,		14
45	Boundary-Layer Receptivity and Integrated Transition Prediction 2005 ,		15
44	Towards transition modelling for supersonic laminar flow control based on spanwise periodic roughness elements. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2005 , 363, 1079-96	3	14
43	Synergism of flow and noise control technologies. <i>Progress in Aerospace Sciences</i> , 2005 , 41, 363-417	8.8	19
42	Uncertainty Quantification for Systems with Random Initial Conditions Using Wiener-Hermite Expansions. <i>Studies in Applied Mathematics</i> , 2005 , 114, 167-188	2.1	11
41	Instability-wave propagation in boundary-layer flows at subsonic through hypersonic Mach numbers. <i>Mathematics and Computers in Simulation</i> , 2004 , 65, 469-487	3.3	11
40	Numerical Simulation of Roughness-Induced Transient Growth in a Laminar Boundary Layer 2004 ,		32

39	Characterization of Unsteady Flow Structures Near Leading-Edge Slat: Part I: PIV Measurements 2004,		56
38	Characterization of Unsteady Flow Structures Near Leading-Edge Slat: Part II: 2D Computations 2004,		39
37	Direct Numerical Simulations of Crossflow Disturbances in Supersonic Boundary Layers 2004,		9
36	Inflow Conditions for Numerical Simulations of Bypass Transition 2004,		9
35	Linear and nonlinear instabilities of a Blasius boundary layer perturbed by streamwise vortices. Part 2. Intermittent instability induced by long-wavelength Klebanoff modes. <i>Journal of Fluid Mechanics,</i> 2003, 483, 249-286	3.7	39
34	Computational Study of Porous Treatment for an Altered Flap Side-Edge Flowfield 2003,		13
33	Cross-Validation of DNS and PSE Results for Instability-Wave Propagation in Compressible Boundary Layers past Curvilinear Surfaces 2003,		9
32	Integrated Transition Prediction: A Case Study in Supersonic Laminar Flow Control 2003,		13
31	In Search of the Physics: The Interplay of Experiment and Computation in Airframe Noise Research, Part 2 (Invited) 2003,		8
30	Application of laser-induced thermal acoustics to a high-lift configuration 2003, 5191, 134		1
29	Direct Numerical Simulations of Instability-Wave Generation and Propagation in Supersonic Boundary Layers. <i>Lecture Notes in Computer Science,</i> 2003, 859-870	0.9	2
28	Novel Approach for Reducing Rotor Tip-Clearance-Induced Noise in Turbofan Engines. <i>AIAA Journal,</i> 2002, 40, 1518-1528	2.1	26
27	Slat-Cove Noise Modeling: A Posteriori Analysis of Unsteady RANS Simulations 2002,		33
26	A novel approach for reducing rotor tip-clearance induced noise in turbofan engines 2001,		5
25	Unsteady Flow Computations of a Slat with a Blunt Trailing Edge. <i>AIAA Journal,</i> 2000, 38, 2050-2058	2.1	110
24	Investigation of High-Lift Flowfield of an Energy Efficient Transport Wing. <i>Journal of Aircraft,</i> 2000, 37, 45-52	1.6	16
23	Unsteady flow computations of a slat with a blunt trailing edge 1999,		6
22	Numerical boundary conditions for simulation of gust-cascade interaction 1999,		2

21	Computational study of micro fluid mechanics of duct acoustic treatment 1999 ,		2
20	Secondary instability of crossflow vortices and swept-wing boundary-layer transition. <i>Journal of Fluid Mechanics</i> , 1999 , 399, 85-115	3-7	174
19	Computational aeroacoustic analysis of slat trailing-edge flow 1999 ,		17
18	Boundary-layer receptivity to three-dimensional unsteady vortical disturbances in free stream 1996		11
17	Long wavelength asymptotics of stationary crossflow instability in incompressible and compressible boundary-layer flows 1996 ,		1
16	Nonlinear Excitation of Inviscid Stationary Vortex Instabilities in a Boundary-Layer Flow. <i>Fluid Mechanics and Its Applications</i> , 1996 , 409-422	0.2	14
15	Distributed acoustic receptivity in laminar flow control configurations. <i>Physics of Fluids</i> , 1994 , 6, 489-506	4.4	7
14	ON SPATIAL EVOLUTION OF LONG-WAVELENGTH GRTLER VORTICES GOVERNED BY A VISCOUS-INVISCID INTERACTION PART 1: THE LINEAR CASE. <i>Quarterly Journal of Mechanics and Applied Mathematics</i> , 1994 , 47, 207-229	1	8
13	Roughness-induced generation of crossflow vortices in three-dimensional boundary layers. <i>Theoretical and Computational Fluid Dynamics</i> , 1994 , 6, 1-30	2-3	77
12	Theoretical prediction of boundary-layer receptivity 1994 ,		35
11	Boundary-layer receptivity due to distributed surface imperfections of a deterministic or random nature. <i>Theoretical and Computational Fluid Dynamics</i> , 1993 , 4, 101-117	2-3	36
10	A finite Reynolds-number approach for the prediction of boundary-layer receptivity in localized regions. <i>Physics of Fluids A, Fluid Dynamics</i> , 1992 , 4, 2495-2514		62
9	Instability wave patterns generated by interaction of sound waves with three-dimensional wall suction or roughness 1990 ,		11
8	Boundary layer receptivity phenomena in three-dimensional and high-speed boundary layers 1990 ,		23
7	A comparison of boundary layer receptivity mechanisms 1988 ,		15
6	Secondary instability of Grtler vortices in hypersonic boundary layer over an axisymmetric configuration. <i>Theoretical and Computational Fluid Dynamics</i> ,1	2-3	0
5	Evolution of high-frequency instabilities in the presence of azimuthally compact crossflow vortex pattern over a yawed cone. <i>Theoretical and Computational Fluid Dynamics</i> ,1	2-3	0
4	Assessment of Slat Extensions and a Cove Filler for Slat Noise Reduction. <i>AIAA Journal</i> ,1-14	2.1	0

3	Direct Numerical Simulation of Acoustic Disturbances in a Hypersonic Two-Dimensional Nozzle Configuration. <i>AIAA Journal</i> ,1-12	2.1	
2	Transition Prediction of Boundary Layers in the Presence of Backward-Facing Steps. <i>AIAA Journal</i> ,1-13	2.1	○
1	Linear Instabilities over Ogive-Cylinder Models at Mach 6. <i>AIAA Journal</i> ,1-14	2.1	○