

# L De Luca

## List of Publications by Year in descending order

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78  
papers

1,412  
citations

257101

24  
h-index

360668

35  
g-index

80  
all docs

80  
docs citations

80  
times ranked

779  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of the stroke length and nozzle-to-plate distance on synthetic jet impingement heat transfer. <i>International Journal of Heat and Mass Transfer</i> , 2018, 117, 1019-1031.	2.5	83
2	Numerically stable formulations of convective terms for turbulent compressible flows. <i>Journal of Computational Physics</i> , 2019, 382, 86-104.	1.9	66
3	Instability of a spatially developing liquid sheet. <i>Journal of Fluid Mechanics</i> , 1997, 331, 127-144.	1.4	65
4	Boundary layer diagnostics by means of an infrared scanning radiometer. <i>Experiments in Fluids</i> , 1990, 9, 121-128.	1.1	58
5	Explicit Runge-Kutta schemes for incompressible flow with improved energy-conservation properties. <i>Journal of Computational Physics</i> , 2017, 328, 86-94.	1.9	56
6	Modeling and Experimental Validation of the Frequency Response of Synthetic Jet Actuators. <i>AIAA Journal</i> , 2014, 52, 1733-1748.	1.5	55
7	Insights on the impact of a plane drop on a thin liquid film. <i>Physics of Fluids</i> , 2011, 23, .	1.6	53
8	Viscous interaction phenomena in hypersonic wedge flow. <i>AIAA Journal</i> , 1995, 33, 2293-2298.	1.5	52
9	LEM Characterization of Synthetic Jet Actuators Driven by Piezoelectric Element: A Review. <i>Sensors</i> , 2017, 17, 1216.	2.1	48
10	Influence of shear layer dynamics on impingement heat transfer. <i>Experimental Thermal and Fluid Science</i> , 1996, 13, 29-37.	1.5	47
11	Plasma Synthetic Jet Actuators for Active Flow Control. <i>Actuators</i> , 2018, 7, 77.	1.2	47
12	Goertler instability of a hypersonic boundary layer. <i>Experiments in Fluids</i> , 1993, 16, 10-16.	1.1	40
13	Goertler-type vortices in hypersonic flows: the ramp problem. <i>Experimental Thermal and Fluid Science</i> , 1997, 15, 69-81.	1.5	38
14	Experimental investigation of the global instability of plane sheet flows. <i>Journal of Fluid Mechanics</i> , 1999, 399, 355-376.	1.4	34
15	Azimuthal instability in an impinging jet: adiabatic wall temperature distribution. <i>Experiments in Fluids</i> , 1995, 18, 303-310.	1.1	32
16	Discrete Energy-Conservation Properties in the Numerical Simulation of the Navier-Stokes Equations. <i>Applied Mechanics Reviews</i> , 2019, 71, .	4.5	31
17	Lower incidence of macrovascular complications in patients on insulin glargine versus those on basal human insulins: A population-based cohort study in Italy. <i>Nutrition, Metabolism and Cardiovascular Diseases</i> , 2014, 24, 10-17.	1.1	30
18	Modelling of efficiency of synthetic jet actuators. <i>Sensors and Actuators A: Physical</i> , 2015, 233, 512-521.	2.0	30

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19	Design approach to predict synthetic jet formation and resonance amplifications. <i>Experimental Thermal and Fluid Science</i> , 2019, 107, 79-87.	1.5	29
20	Modulation transfer function cascade model for a sampled IR imaging system. <i>Applied Optics</i> , 1991, 30, 1659.	2.1	28
21	FLOW VISUALIZATION AND HEAT TRANSFER MEASUREMENT IN A HYPERSONIC WIND TUNNEL. <i>Experimental Heat Transfer</i> , 1992, 5, 65-78.	2.3	27
22	Experimental analysis of surface flow on a delta wing by infrared thermography. <i>AIAA Journal</i> , 1995, 33, 1510-1512.	1.5	26
23	Surfactant effects on the dynamics of a thin liquid sheet. <i>Journal of Fluid Mechanics</i> , 1995, 300, 71-85.	1.4	26
24	Scaling properties of resonant cavities driven by piezo-electric actuators. <i>Sensors and Actuators A: Physical</i> , 2016, 247, 465-474.	2.0	24
25	Comparative study of spectral-element and finite-volume solvers for direct numerical simulation of synthetic jets. <i>Computers and Fluids</i> , 2019, 179, 228-237.	1.3	24
26	Global eigenmodes of thin liquid sheets by means of Volume-of-Fluid simulations. <i>Physics of Fluids</i> , 2020, 32, .	1.6	22
27	Energy preserving turbulent simulations at a reduced computational cost. <i>Journal of Computational Physics</i> , 2015, 298, 480-494.	1.9	20
28	Unsteady critical liquid sheet flows. <i>Journal of Fluid Mechanics</i> , 2017, 821, 219-247.	1.4	20
29	Some Experimental Investigations on Gas Turbine Cooling Performed with Infrared Thermography at Federico II. <i>International Journal of Rotating Machinery</i> , 2015, 2015, 1-16.	0.8	17
30	An efficient time advancing strategy for energy-preserving simulations. <i>Journal of Computational Physics</i> , 2015, 295, 209-229.	1.9	16
31	Approximate Projection Method for the Incompressible Navier-Stokes Equations. <i>AIAA Journal</i> , 2016, 54, 2179-2182.	1.5	16
32	Global dynamics analysis of nappe oscillation. <i>Physics of Fluids</i> , 2014, 26, .	1.6	15
33	Numerical and Experimental Frequency Response of Plasma Synthetic Jet Actuators. , 2017, , .		14
34	Receptivity to forcing disturbances in subcritical liquid sheet flows. <i>Physics of Fluids</i> , 2021, 33, .	1.6	14
35	On transient growth oscillations in linear models. <i>Physics of Fluids</i> , 2006, 18, 078104.	1.6	13
36	Numerical and experimental characterization of a double-orifice synthetic jet actuator. <i>Meccanica</i> , 2018, 53, 2883-2896.	1.2	13

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37	INFLUENCE OF PIEZO-DRIVEN SYNTHETIC JET ON WATER SPRAY BEHAVIOR. <i>Atomization and Sprays</i> , 2017, 27, 691-706.	0.3	13
38	Heat Flux Sensors for Infrared Thermography in Convective Heat Transfer. <i>Sensors</i> , 2014, 14, 21065-21116.	2.1	12
39	Downward-deployed tethered platforms for high-enthalpy aerothermodynamic research. <i>Journal of Spacecraft and Rockets</i> , 1990, 27, 216-221.	1.3	10
40	Measurements versus Numerical Simulations for Slotted Synthetic Jet Actuator. <i>Actuators</i> , 2018, 7, 59.	1.2	10
41	Modal decomposition analysis of unsteady viscous liquid sheet flows. <i>Physics of Fluids</i> , 2021, 33, .	1.6	10
42	Energy growth of initial perturbations in two-dimensional gravitational jets. <i>Physics of Fluids</i> , 2002, 14, 289-299.	1.6	9
43	Lower Rate of Cardiovascular Complications in Patients on Bolus Insulin Analogues: A Retrospective Population-Based Cohort Study. <i>PLoS ONE</i> , 2013, 8, e79762.	1.1	9
44	Surface tension effects on the motion of a free-falling liquid sheet. <i>Physics of Fluids</i> , 2013, 25, .	1.6	8
45	Two-dimensional flow of a liquid sheet under gravity. <i>Computers and Fluids</i> , 1995, 24, 401-414.	1.3	7
46	The VOF method applied to the numerical simulation of a 2D liquid jet under gravity. <i>WIT Transactions on Engineering Sciences</i> , 2010, , .	0.0	7
47	Non-modal dynamics before flow-induced instability in fluid-structure interactions. <i>Journal of Sound and Vibration</i> , 2010, 329, 848-865.	2.1	6
48	Disturbance energy growth in core-annular flow. <i>Journal of Fluid Mechanics</i> , 2014, 747, 44-72.	1.4	6
49	A Calibrated Lumped Element Model for the Prediction of PSJ Actuator Efficiency Performance. <i>Actuators</i> , 2018, 7, 10.	1.2	6
50	Active control of separated flow over 2D back-facing ramp by an array of finite-span slotted synthetic jets. <i>Experimental Thermal and Fluid Science</i> , 2021, 129, 110475.	1.5	6
51	Water Spray Flow Characteristics Under Synthetic Jet Driven By a Piezoelectric Actuator. <i>Journal of Physics: Conference Series</i> , 2017, 778, 012005.	0.3	5
52	Flow characterization of an array of finite-span synthetic jets in quiescent ambient. <i>Experimental Thermal and Fluid Science</i> , 2020, 119, 110208.	1.5	5
53	Insights into low Reynolds flow past finite curved cylinders. <i>Physics of Fluids</i> , 2021, 33, .	1.6	5
54	Experimental and CFD Characterization of a Double-Orifice Synthetic Jet Actuator for Flow Control. <i>Actuators</i> , 2021, 10, 326.	1.2	5

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55	Numerical Approach to the Design of a Diesel Engine Injection System by an Optimization Technique. , 1985, , .		4
56	Characterization Of Boundary Layer Conditions In Wind Tunnel Tests Through Ir Thermography Imaging. Proceedings of SPIE, 1988, , .	0.8	4
57	Modal analysis of actively controlled flow past a backward facing ramp. Physical Review Fluids, 2021, 6, .	1.0	4
58	Energy insights into the unsteady dynamics of a viscous gravitational liquid sheet. Physics of Fluids, 2021, 33, .	1.6	4
59	Feasibility studies for the installation of Plasma Synthetic Jet Actuators on the skin of a morphing wing flap. , 2018, , .		4
60	Theoretical and experimental analysis of the modulation response of a sampled IR imaging system. , 1990, 1313, 259.		3
61	Image restoration in thermo-fluid-dynamic applications of IR digital imagery. , 1990, , .		3
62	SINGLE-WAVE KELVIN-HELMHOLTZ INSTABILITY IN NONPARALLEL CHANNEL FLOW. Atomization and Sprays, 2011, 21, 775-785.	0.3	3
63	Global eigenmodes of free-interface vertical liquid sheet flows. WIT Transactions on Engineering Sciences, 2013, , .	0.0	3
64	Critical Discharge in Actively Cooled Wing Leading Edge of a Reentry Vehicle. Journal of Thermophysics and Heat Transfer, 2008, 22, 677-684.	0.9	2
65	Modal analysis of actively controlled flow past a backward facing ramp. , 2020, , .		2
66	<title>Experimental analysis of Goertler vortices in hypersonic wedge flow</title>. , 1992, 1682, 271.		1
67	Non-Modal Instability of Core-Annular Flow. International Journal of Nonlinear Sciences and Numerical Simulation, 2012, 13, .	0.4	1
68	Derivation of New Staggered Compact Schemes with Application to Navier-Stokes Equations. Applied Sciences (Switzerland), 2018, 8, 1066.	1.3	1
69	Receptivity to synthetic jet actuation in boundary layer flows. , 2020, , .		1
70	Flow control on a 2D back-facing ramp by Synthetic Jets. , 2020, , .		1
71	Numerical Study on the Flow Field Generated by a Double-Orifice Synthetic Jet Device. Lecture Notes in Mechanical Engineering, 2020, , 45-56.	0.3	1
72	INSTABILITY OF A THIN LIQUID SHEET IN THE GRAVITATIONAL FIELD. , 1988, , 213-218.		1

#	ARTICLE	IF	CITATIONS
73	Goertler Vortices in Hypersonic Flow Detected by IR Thermography. , 0, , .		0
74	Evolution of a wave packet in nonuniform liquid sheets. , 1996, , .		0
75	Flash Evaporation Phenomena in Actively Cooled Wing Leading Edge of Re-Entry Vehicles. , 2007, , .		0
76	Characterization of Synthetic Jet Resonant Cavities. , 2015, , 101-118.		0
77	An Analysis of Time-Integration Errors in Large-Eddy Simulation of Incompressible Turbulent Flows. ERCOFTAC Series, 2019, , 31-37.	0.1	0
78	The role of the critical layer in the channel flow transition revisited. Meccanica, 2019, 54, 2169-2182.	1.2	0