Christophe Bogey

List of Publications by Citations

145 papers	4,673 citations	33 h-index	66 g-index
161 ext. papers	5,516 ext. citations	2.6 avg, IF	6.16 L-index

#	Paper	IF	Citations
145	A family of low dispersive and low dissipative explicit schemes for flow and noise computations. *Journal of Computational Physics*, **2004**, 194, 194-214	4.1	618
144	Noise Investigation of a High Subsonic, Moderate Reynolds Number Jet Using a Compressible Large Eddy Simulation. *Theoretical and Computational Fluid Dynamics*, **2003**, 16, 273-297	2.3	271
143	A shock-capturing methodology based on adaptative spatial filtering for high-order non-linear computations. *Journal of Computational Physics*, **2009**, 228, 1447-1465	4.1	225
142	Influence of nozzle-exit boundary-layer conditions on the flow and acoustic fields of initially laminar jets. *Journal of Fluid Mechanics*, **2010**, 663, 507-538	3.7	167
141	High-order, low dispersive and low dissipative explicit schemes for multiple-scale and boundary problems. *Journal of Computational Physics*, **2007**, 224, 637-662	4.1	163
140	Large eddy simulations of transitional round jets: Influence of the Reynolds number on flow development and energy dissipation. *Physics of Fluids*, **2006**, 18, 065101	4.4	156
139	Computation of Flow Noise Using Source Terms in Linearized Euler's Equations. *AIAA Journal*, **2002**, 40, 235-243	2.1	151
138	An analysis of the correlations between the turbulent flow and the sound pressure fields of subsonic jets. *Journal of Fluid Mechanics*, **2007**, 583, 71-97	3.7	140
137	Effects of Inflow Conditions and Forcing on Subsonic Jet Flows and Noise.. *AIAA Journal*, **2005**, 43, 1000-1007	2.1	139
136	Turbulence and energy budget in a self-preserving round jet: direct evaluation using large eddy simulation. *Journal of Fluid Mechanics*, **2009**, 627, 129-160	3.7	136
135	Low-dissipation and low-dispersion fourth-order Runge–Kutta algorithm. *Computers and Fluids*, **2006**, 35, 1459-1463	2.8	132
134	Large-eddy simulation of the flow and acoustic fields of a Reynolds number 105 subsonic jet with tripped exit boundary layers. *Physics of Fluids*, **2011**, 23, 035104	4.4	115
133	Influence of initial turbulence level on the flow and sound fields of a subsonic jet at a diameter-based Reynolds number of 105. *Journal of Fluid Mechanics*, **2012**, 701, 352-385	3.7	114
132	Computation of a high Reynolds number jet and its radiated noise using large eddy simulation based on explicit filtering. *Computers and Fluids*, **2006**, 35, 1344-1358	2.8	109
131	Large eddy simulations of round free jets using explicit filtering with/without dynamic Smagorinsky model. *International Journal of Heat and Fluid Flow*, **2006**, 27, 603-610	2.4	90
130	Numerical study of screech generation in a planar supersonic jet. *Physics of Fluids*, **2007**, 19, 075105	4.4	79
129	Numerical Simulation of Sound Generated by Vortex Pairing in a Mixing Layer. *AIAA Journal*, **2000**, 38, 2210-2218	2.1	72

128	Direct Noise Computation of the Turbulent Flow Around a Zero-Incidence Airfoil. *AIAA Journal*, **2008**, 46, 874-883	2.1	69
127	Investigation of downstream and sideline subsonic jet noise using Large Eddy Simulation. *Theoretical and Computational Fluid Dynamics*, **2006**, 20, 23-40	2.3	68
126	Experimental Study of the Spectral Properties of Near-Field and Far-Field Jet Noise. *International Journal of Aeroacoustics*, **2007**, 6, 73-92	2.1	64
125	Finite differences for coarse azimuthal discretization and for reduction of effective resolution near origin of cylindrical flow equations. *Journal of Computational Physics*, **2011**, 230, 1134-1146	4.1	62
124	Simulation of a hot coaxial jet: Direct noise prediction and flow-acoustics correlations. *Physics of Fluids*, **2009**, 21, 035105	4.4	61
123	Decrease of the Effective Reynolds Number with Eddy-Viscosity Subgrid Modeling. *AIAA Journal*, **2005**, 43, 437-439	2.1	60
122	On the performance of relaxation filtering for large-eddy simulation. *Journal of Turbulence*, **2013**, 14, 22-49	2.1	55
121	Numerical Evidence of Mode Switching in the Flow-Induced Oscillations by a Cavity. *International Journal of Aeroacoustics*, **2003**, 2, 193-217	2.1	50
120	Contributions of Computational Aeroacoustics to Jet Noise Research and Prediction. *International Journal of Computational Fluid Dynamics*, **2004**, 18, 481-491	1.2	49
119	Feedback loop and upwind-propagating waves in ideally expanded supersonic impinging round jets. *Journal of Fluid Mechanics*, **2017**, 823, 562-591	3.7	48
118	Effects of moderate Reynolds numbers on subsonic round jets with highly disturbed nozzle-exit boundary layers. *Physics of Fluids*, **2012**, 24, 105107	4.4	45
117	Investigation of a High-Mach-Number Overexpanded Jet Using Large-Eddy Simulation. *AIAA Journal* , **2011**, 49, 2171-2182	2.1	45
116	Investigation of tone generation in ideally expanded supersonic planar impinging jets using large-eddy simulation. *Journal of Fluid Mechanics*, **2016**, 808, 90-115	3.7	43
115	Educing the source mechanism associated with downstream radiation in subsonic jets. *Journal of Fluid Mechanics*, **2012**, 710, 606-640	3.7	39
114	Large-eddy simulation of turbulent channel flow using relaxation filtering: Resolution requirement and Reynolds number effects. *Computers and Fluids*, **2015**, 116, 17-28	2.8	38
113	Direct Computation of the Noise Generated by Subsonic Jets Originating from a Straight Pipe Nozzle. *International Journal of Aeroacoustics*, **2008**, 7, 1-21	2.1	34
112	HIGH-ORDER CURVILINEAR SIMULATIONS OF FLOWS AROUND NON-CARTESIAN BODIES. *Journal of Computational Acoustics*, **2005**, 13, 731-748		33
111	Computation of the sound radiated by a 3-D jet using large eddy simulation **2000**,		33

110	Oscillation Modes in Screeching Jets. *AIAA Journal*, **2018**, 56, 2918-2924	2.1	30
109	Identification of the effects of the nozzle-exit boundary-layer thickness and its corresponding Reynolds number in initially highly disturbed subsonic jets. *Physics of Fluids*, **2013**, 25, 055106	4.4	28
108	Noise of an Overexpanded Mach 3.3 Jet: Non-Linear Propagation Effects and Correlations with Flow. *International Journal of Aeroacoustics*, **2014**, 13, 607-632	2.1	28
107	Progress in Direct Noise Computation. *International Journal of Aeroacoustics*, **2010**, 9, 123-143	2.1	27
106	An investigation of the mechanisms of sound generation in initially laminar subsonic jets using the Goldstein acoustic analogy. *Journal of Fluid Mechanics*, **2013**, 714, 24-57	3.7	25
105	Filter shape dependence and effective scale separation in large-eddy simulations based on relaxation filtering. *Computers and Fluids*, **2011**, 47, 65-74	2.8	25
104	Flow Structure Oscillations and Tone Production in Underexpanded Impinging Round Jets. *AIAA Journal*, **2017**, 55, 1792-1805	2.1	24
103	Numerical study of eigenmode forcing effects on jet flow development and noise generation mechanisms. *Physics of Fluids*, **2009**, 21, 045106	4.4	24
102	A study of infrasound propagation based on high-order finite difference solutions of the Navier-Stokes equations. *Journal of the Acoustical Society of America*, **2014**, 135, 1083-95	2.2	23
101	Investigation of flow features and acoustic radiation of a round cavity. *Journal of Sound and Vibration*, **2012**, 331, 3521-3543	3.9	22
100	LES of a High Reynolds, High Subsonic Jet: Effects of the Inflow Conditions on Flow and Noise **2003**,		22
99	Simulations of Initially Highly Disturbed Jets with Experiment-Like Exit Boundary Layers. *AIAA Journal*, **2016**, 54, 1299-1312	2.1	21
98	Investigation of Subsonic Jet Noise Using LES: Mach and Reynolds Number Effects **2004**,		21
97	Grid sensitivity of flow field and noise of high-Reynolds-number jets computed by large-eddy simulation. *International Journal of Aeroacoustics*, **2018**, 17, 399-424	2.1	21
96	Numerical study of the flow and the near acoustic fields of an underexpanded round free jet generating two screech tones. *International Journal of Aeroacoustics*, **2017**, 16, 603-625	2.1	20
95	Modelling of Sound Generation by Turbulent Reacting Flows. *International Journal of Aeroacoustics*, **2010**, 9, 461-489	2.1	20
94	Simulation of Subsonic Turbulent Nozzle Jet Flow and Its Near-Field Sound. *AIAA Journal*, **2014**, 52, 1653-1669	2.1	19
93	On the spectra of nozzle-exit velocity disturbances in initially nominally turbulent, transitional jets. *Physics of Fluids*, **2011**, 23, 091702	4.4	19

92	A numerical study of nonlinear infrasound propagation in a windy atmosphere. *Journal of the Acoustical Society of America*, **2016**, 140, 641	2.2	19
91	On the application of explicit spatial filtering to the variables or fluxes of linear equations. *Journal of Computational Physics*, **2007**, 225, 1211-1217	4.1	18
90	Aerodynamic Noise Induced by Laminar and Turbulent Boundary Layers over Rectangular Cavities **2002**,		18
89	Large Eddy Simulation of Screech Tone Generation in a Planar Underexpanded Jet **2006**,		17
88	Investigation of sound sources in subsonic jets using causality methods on LES data **2005**,		16
87	Effects of nozzle-exit boundary-layer profile on the initial shear-layer instability, flow field and noise of subsonic jets. *Journal of Fluid Mechanics*, **2019**, 876, 288-325	3.7	15
86	Illustration of the Inclusion of Sound-Flow Interactions in Lighthill\'s Equation. *AIAA Journal*, **2003**, 41, 1604-1606	2.1	15
85	Computation of flow noise using source terms in linearized Euler\'s equations **2000**,		15
84	Computation of the Noise Radiated by Jets with Laminar/Turbulent Nozzle-Exit Conditions **2006**,		14
83	LES of a High Reynolds, High Subsonic Jet: Effects of the Subgrid Modellings on Flow and Noise **2003**,		14
82	Steepened Mach waves near supersonic jets: study of azimuthal structure and generation process using conditional averages. *Journal of Fluid Mechanics*, **2019**, 880, 594-619	3.7	12
81	A study of differentiation errors in large-eddy simulations based on the EDQNM theory. *Journal of Computational Physics*, **2008**, 227, 8314-8340	4.1	11
80	Some useful hybrid approaches for predicting aerodynamic noise. *Comptes Rendus - Mecanique*, **2005**, 333, 666-675	2.1	11
79	On noise generation in low Reynolds number temporal round jets at a Mach number of 0.9. *Journal of Fluid Mechanics*, **2019**, 859, 1022-1056	3.7	11
78	A computational study of the effects of nozzle-exit turbulence level on the flow and acoustic fields of a subsonic jet **2011**,		10
77	Noise computation using Lighthill\'s equation with inclusion of mean flow-acoustics interactions **2001**,		10
76	Acoustic tones in the near-nozzle region of jets: characteristics and variations between Mach numbers 0.5 and 2. *Journal of Fluid Mechanics*, **2021**, 921,	3.7	10
75	Investigation of flow features around shallow round cavities subject to subsonic grazing flow. *Physics of Fluids*, **2012**, 24, 125107	4.4	9

74	Development of Compressible Large-Eddy Simulations Combining High-Order Schemes and Wall Modeling. *AIAA Journal*, **2017**, 55, 1152-1163	2.1	8
73	Optimized Explicit Schemes: Matching and Boundary Schemes, and 4th-order Runge-Kutta Algorithm **2004**,		8
72	Numerical investigation of wave steepening and shock coalescence near a cold Mach 3 jet. *Journal of the Acoustical Society of America*, **2021**, 149, 357	2.2	8
71	Simulations of viscous and compressible gas–gas flows using high-order finite difference schemes. *Journal of Computational Physics*, **2018**, 361, 56-81	4.1	7
70	Numerical investigation of temperature effects on properties of subsonic turbulent jets **2013**,		7
69	Development of Noncentered Wavenumber-Based Optimized Interpolation Schemes with Amplification Control for Overlapping Grids. *SIAM Journal of Scientific Computing*, **2010**, 32, 2074-2098	2.6	7
68	Influence of the Nozzle-Exit Boundary-Layer Thickness on the Flow and Acoustic Fields of Initially Laminar Jets **2009**,		7
67	Direct Noise Computation around a 3-D NACA 0012 airfoil **2006**,		7
66	Large-eddy simulation of underexpanded round jets impinging on a flat plate 4 to 9 radii downstream from the nozzle **2015**,		6
65	Temperature Effects on Convection Speed and Steepened Waves of Temporally Developing Supersonic Jets. *AIAA Journal*, **2020**, 58, 1227-1239	2.1	6
64	Direct Noise Computation of a Shocked and Heated Jet at a Mach Number of 3.30 **2010**,		6
63	Investigation of flow features and acoustic radiation of a round cavity. **2008**,		6
62	Self-Adjusting Shock-Capturing Spatial Filtering for High-Order Non-Linear Computations **2008**,		6
61	Intermittent statistics of the 0-mode pressure fluctuations in the near field of Mach 0.9 circular jets at low and high Reynolds numbers. *Theoretical and Computational Fluid Dynamics*, **2021**, 35, 229-247	2.3	6
60	Development of compressible large-eddy simulations combining high-order schemes and wall modeling **2015**,		5
59	Flow Features near Plate Impinged by Ideally Expanded and Underexpanded Round Jets. *AIAA Journal*, **2018**, 56, 445-457	2.1	5
58	Flow and acoustic fields of Reynolds number 10 5, subsonic jets with tripped exit boundary layers **2010**,		5
57	Noise Radiated by a High-Reynolds-number 3-D Airfoil **2005**,		5

56	Experimental Study of the Properties of Near-Field and Far-Field Jet Noise **2006**,		5
55	Downstream subsonic jet noise: link with vortical structures intruding into the jet core. *Comptes Rendus - Mecanique*, **2002**, 330, 527-533	2.1	5
54	Numerical Investigation of the Coexistence of Multiple Tones in Flow-induced Cavity Noise **2003**,		5
53	Potential-core closing of temporally developing jets at Mach numbers between 0.3 and 2: Scaling and conditional averaging of flow and sound fields. *Physical Review Fluids*, **2019**, 4,	2.8	5
52	Progress in Direct Noise Computation. *Noise Notes*, **2010**, 9, 31-48		5
51	Numerical Simulation of Supersonic Jet Noise. *Notes on Numerical Fluid Mechanics and Multidisciplinary Design*, **2009**, 29-46	0.3	5
50	Selective Filtering Versus Eddy Viscosity for Subgrid Modelling in the LES of a Subsonic Jet. *ERCOFTAC Series*, **2004**, 23-30	0.1	5
49	Semi-Implicit Runge–Kutta Schemes: Development and Application to Compressible Channel Flow. *AIAA Journal*, **2014**, 52, 516-527	2.1	4
48	Direct Computation of the Noise Generated by a Hot Coaxial Jet **2007**,		4
47	Two-dimensional features of correlations in the flow and near pressure fields of Mach number 0.9 jets **2019**,		4
46	Depth effects on the flow features and noise signature of shallow cylindrical cavities at a Mach number of 0.25 **2012**,		3
45	Computation of the noise of initially laminar jets using a statistical approach for the acoustic analogy: application and discussion **2011**,		3
44	Direct simulation of isolated elliptic vortices and of their radiated noise. *Theoretical and Computational Fluid Dynamics*, **2008**, 22, 65-82	2.3	3
43	High-order Curvilinear Simulations of Flows Around Non-Cartesian Bodies **2004**,		3
42	Imprint of Vortical Structures on the Near-Field Pressure of a Turbulent Jet. *AIAA Journal*,1-14	2.1	3
41	A Study of the Influence of the Reynolds Number on Jet Self-Similarity Using Large-Eddy Simulation. *ERCOFTAC Series*, **2010**, 11-16	0.1	3
40	Links Between Steepened Mach Waves and Coherent Structures for a Supersonic Jet. *AIAA Journal*, **2021**, 59, 1673-1681	2.1	3
39	Effects of the angle of impact on the aeroacoustic feedback mechanism in supersonic impinging planar jets. *International Journal of Aeroacoustics*, **2019**, 18, 258-278	2.1	3

38	Generation of Excess Noise by Jets with Highly Disturbed Laminar Boundary-Layer Profiles. *AIAA Journal*, **2021**, 59, 569-579	2.1	3
37	Study of the generation of shock waves by high-speed jets using conditional averaging **2018**,		3
36	Acoustic shielding and interaction effects for strongly heated supersonic twin jets. *AIP Advances*, **2021**, 11, 075114	1.5	3
35	Direct numerical simulation of a temporally-developing subsonic round jet and its sound field **2017**,		2
34	Numerical modelling of jets exiting from the ASME and conical nozzles **2015**,		2
33	A study of the grid dependence of the flow field and noise of subsonic jets **2016**,		2
32	A technique of flux reconstruction at the interfaces of nonconforming grids for aeroacoustic simulations. *International Journal for Numerical Methods in Fluids*, **2019**, 91, 587-614	1.9	2
31	Influence of nozzle-exit boundary-layer profile on high-subsonic jets **2014**,		2
30	Numerical Investigation of Flow Features and Acoustic Radiation of a Round Cavity **2010**,		2
29	Flow and sound fields of initially tripped jets at Reynolds numbers ranging from 25,000 to 200,000 **2012**,		2
28	Effects of initial shear-layer thickness on turbulent subsonic jets at moderate Reynolds numbers **2012**,		2
27	On the importance of specifying appropriate nozzle-exit conditions in jet noise prediction. *Procedia Engineering*, **2010**, 6, 38-43		2
26	Investigation using statistical closure theory of the influence of the filter shape on scale separation in large-eddy simulation. *Journal of Turbulence*, **2008**, 9, N21	2.1	2
25	Intermittency and Stochastic Modeling of Low- and High-Reynolds-Number Compressible Jets. *AIAA Journal*,1-8	2.1	2
24	Tones in the Acoustic Far Field of Jets in the Upstream Direction. *AIAA Journal*,1-10	2.1	2
23	Analysis of Numerical Error Reduction in Explicitly Filtered LES Using Two-Point Turbulence Closure. *ERCOFTAC Series*, **2008**, 143-154	0.1	2
22	Numerical Study of Temporally-Developing Supersonic Round Jets and their Sound Fields **2017**,		1
21	Large Eddy Simulation of Highly Compressible Jets with Tripped Boundary Layers. *ERCOFTAC Series* , **2019**, 333-339	0.1	1

20	Large-eddy simulation of supersonic planar jets impinging on a flat plate at an angle of 60 to 90 degrees **2015**,		1
19	A flux reconstruction technique for non-conforming grid interfaces in aeroacoustic simulations **2016**,		1
18	Estimation of convection speed in underexpanded jets from schlieren pictures **2016**,		1
17	Azimuthal organisation of turbulent structures in underexpanded impinging round jets **2016**,		1
16	Analysis of the dissipation and dispersion properties of the multi-domain Chebyshev pseudospectral method. *Journal of Computational Physics*, **2013**, 255, 31-47	4.1	1
15	A study of the effects of temperature on velocity and density fluctuations in high-subsonic jets **2014**,		1
14	Influence of resolution and Reynolds number on large-eddy simulations of channel flow using relaxation filtering **2013**,		1
13	Jet Turbulance Characteristics Associated with Downstream and Sideline Sound Emission **2010**,		1
12	Generation of acoustic tones in round jets at a Mach number of 0.9 impinging on a plate with and without a hole. *Journal of Fluid Mechanics*, **2022**, 936,	3.7	1
11	Influence of Reynolds number and grid resolution on large-eddy simulations of self-similar jets based on relaxation filtering. *ERCOFTAC Series*, **2011**, 319-328	0.1	1
10	Direct Computation of Infrasound Propagation in Inhomogeneous Atmosphere Using a Low-Dispersion and Low-Dissipation Algorithm **2009**, 113-118		1
9	Large-eddy simulations of the flow and acoustic fields of a rocket jet impinging on a perforated plate **2021**,		1
8	Flow and Acoustic Fields of Rocket Jets Impinging on a Perforated Plate. *AIAA Journal*,1-14	2.1	0
7	Reprint of: On the importance of specifying appropriate nozzle-exit conditions in jet noise prediction. *Procedia IUTAM*, **2010**, 1, 38-43		
6	Calcul du rayonnement acoustique d'une couche de mélange à l'aide des équations d'Euler linéarisées. *Comptes Rendus De L'Academie De Sciences - Serie IIb: Mecanique, Physique, Chimie, Astronomie*, **2000**, 328, 341-347		
5	Calcul direct du rayonnement acoustique d'une couche de mélange par macrosimulation. *Comptes Rendus De L'Academie De Sciences - Serie IIb: Mecanique, Physique, Chimie, Astronomie*, **1999**, 327, 1029-1034		
4	Turbulence and energy balance in an axisymmetric jet computed by Large Eddy Simulation **2007**, 316-318		
3	Large Eddy Simulation of a Self-Preserving Turbulent Jet Using High-Order Schemes **2007**, 95-98		

2 Assessment of Dissipation in LES Based on Explicit Filtering from the Computation of Kinetic Energy Budget. *ERCOFTAC Series*, **2008**, 81-92

1 A Dynamic Spatial Filtering Procedure for Shock Capturing in High-Order Computations **2009**, 417-422