

Christophe BAILLYDate of birth : 19th march 1967

Nationality : French

E-mail : christophe.bailly@ec-lyon.fr

URL : <http://acoustique.ec-lyon.fr>**Centre Acoustique - LMFA****Ecole Centrale de Lyon**

36 av. Guy de Collongue

69134 Ecully cedex, France

Current position

- 2003 - present **Professor at Ecole Centrale de Lyon (CE2 Sept. 2016)**,
Head of the Centre for Acoustic Research,
Fluid Mechanics and Acoustics Laboratory (LMFA, UMR CNRS 5509)
- 2007 - 2012 Junior Member of the **Institut Universitaire de France**
- 2001 - present **Lecturer at ENSTA ParisTech** (engineering school)

Education

- 1999 **Habilitation à diriger des recherches** (qualified to supervise PhD Theses)
- 1991 - 1994 **PhD Thesis at Ecole Centrale Paris**
- 1989 - 1990 **Diplôme d'Études Approfondies d'Acoustique** (MSc in Acoustics)
- 1987 - 1990 **Engineering Degree of Ecole Centrale de Lyon**

Publications

105 archival journals, 2 books, 23 invited lectures, 176+ international communications with refereed scientific meetings (exclusive of invited lectures)
h-index of 30 in WebOfScience with 2800+ citations, using ($AU=(Bailly\ C)$) AND ($AD=(Chatenay\ or\ Ecully\ or\ Clamart)$)
30 PhD dissertations supervised.

Editorships

Associate Editor of the *AIAA Journal* (2005 - present)
Advisory-Editor, *Flow, Turbulence and Combustion* (dec 2011 - present)

Awards

Medal of the National Air and Space Academy (Toulouse, 2016)
Alexandre Joannidès Great Prize of the Academy of Sciences (Paris, 2001)
Yves Rocard Prize of the French Acoustical Society (1996)

Committees / Professional affiliations

Member of the CT2 committee (fluid dynamics & complex fluids) of the GENCI, French national high-performance computing (HPC) agency (2009 - 2016)
Responsible of the Special Interest Group in Aeroacoustics (SIG-39) of Ercoftac, *European Research Community On Flow, Turbulence And Combustion* (depuis 2009)
Head of the Scientific Council of IROQUA, *Research Initiative for Aeronautics Acoustic Optimization* (Onera, CNRS, Safran, Airbus, Dassault, Eurocopter, ADP, 2010-2015)
Elected member of the Scientific Council of Ecole Centrale de Lyon (2009 - 2017)

Publications

105 archival journals, 23 invited lectures, 2 books, 120 international communications in refereed scientific meetings (exclusive of invited lectures and including selected papers in books), 56 other communications in scientific meetings, 3 papers in magazine.

h-index of 30 in *WebOfScience* with more than 2800 citations

– using ($AU=(Bailly\ C)$) AND ($AD=(Chatenay\ or\ Ecully\ or\ Clamart)$)

Books

- a1. BAILLY, C. & COMTE BELLOT, G., 2003, *Turbulence*, CNRS éditions, Paris, ISBN 2-271-06008-7. (en français, 376 pages, 114 figures, 622 références; tiré à 800 exemplaires, épuisé depuis 2006)
- a2. BAILLY, C. & COMTE BELLOT, G., 2015, *Turbulence*, Springer, Heidelberg, ISBN 978-3-319-16159-4. (en anglais, 360 pages, 147 illustrations, 796 références). Preface by C. MENEVEAU.

Refereed publications in international Journals

- b1. BÉCHARA, W., BAILLY, C., LAFON, P. & CANDEL, S., 1994, Stochastic approach to noise modeling for free turbulent flows, *AIAA Journal*, **32**(3), 455-463.
- b2. BAILLY, C., LAFON, P. & CANDEL, S., 1994, Computation of subsonic and supersonic jet mixing noise using a modified $k - \epsilon$ model for compressible free shear flows, *Acta Acustica*, **2**(2), 101-112.
- b3. BÉCHARA, W., LAFON, P., BAILLY, C. & CANDEL, S., 1995, Application of a $k - \epsilon$ model to the prediction of noise for simple and coaxial free jets, *J. Acoust. Soc. Am.*, **97**(5), 1-14.
- b4. BAILLY, C., LAFON, P. & CANDEL, S., 1996, Calculations of eddy Mach wave acoustic radiation using a statistical model and a compressible turbulence closure, *Journal of Sound and Vibration*, **194**(2), 219-242.
- b5. BAILLY, C., LAFON, P. & CANDEL, S., 1997, Subsonic and supersonic jet noise predictions from statistical source models, *AIAA Journal*, **35**(11), 1688-1696.
- b6. BAILLY, C. & JUVÉ, D., 2000, Numerical solution of acoustic propagation problems using linearized Euler's equations, *AIAA Journal*, **38**(1), 22-29.
- b7. SEROR, C., SAGAUT, P., BAILLY, C. & JUVÉ, D., 2000, Subgrid-scale contribution to noise production in decaying isotropic turbulence, *AIAA Journal*, **38**(10), 1795-1803.
- b8. BOGEY, C., BAILLY, C. & JUVÉ, D., 2000, Numerical simulation of the sound generated by vortex pairing in a mixing layer, *AIAA Journal*, **38**(12), 2210-2218.
- b9. SEROR C., SAGAUT P., BAILLY C., JUVÉ D., 2001, On the radiated noise computed by large-eddy simulation, *Physics of Fluids*, **13**(2), 476-487.
- b10. BOGEY, C., BAILLY, C. & JUVÉ, D., 2002, Computation of flow noise using source terms in linearized Euler's equations, *AIAA Journal*, **40**(2), 235-243.
- b11. BOGEY, C. & BAILLY, C., 2002, Three-dimensional non-reflective boundary conditions for acoustic simulations : far field formulation and validation test cases, *Acta Acustica*, **88**(4), 463-471.
- b12. BOGEY, C., BAILLY, C. & JUVÉ, D., 2003, Noise investigation of a high subsonic, moderate Reynolds number jet using a compressible LES, *Theoretical and Computational Fluid Dynamics*, **16**(4), 273-297.
- b13. BOGEY, C., GLOERFELT, X. & BAILLY, C., 2003, An illustration of the inclusion of sound - flow interactions in Lighthill's equation, *AIAA Journal*, **41**(8), 1604-1606.
- b14. GLOERFELT, X., BAILLY, C. & JUVÉ, D., 2003, Noise radiated by a subsonic cavity flow and application of integral methods, *Journal of Sound and Vibration*, **266**(1), 119-146.
- b15. GLOERFELT, X., BOGEY, C. & BAILLY, C., 2003, Numerical evidence of mode switching in the flow-induced oscillations by a cavity, *International Journal of Aeroacoustics*, **2**(2), 193-217.

- b16. BOGEY, C. & BAILLY, C., 2004, A family of low dispersive and low dissipative explicit schemes for noise computation, *Journal of Computational Physics*, **194**(1), 194-214.
- b17. BAILLY, C. & BOGEY, C., 2004, Contributions of CAA to jet noise research and prediction, *International Journal of Computational Fluid Dynamics*, **18**(6), 481-491.
- b18. BOGEY, C. & BAILLY, C., 2005, Decrease of the effective Reynolds number with eddy-viscosity subgrid-scale modelling, *AIAA Journal*, **43**(2), 437-439.
- b19. BOGEY, C. & BAILLY, C., 2005, Effects of inflow conditions and forcing on a Mach 0.9 jet and its radiated noise, *AIAA Journal*, **43**(5), 1000-1007.
- b20. GLOERFELT, X., PÉROT, F., BAILLY, C. & JUVÉ, D., 2005, Flow-induced cylinder noise formulated as diffraction problem for low Mach number flows, *Journal of Sound and Vibration*, **287**(1-2), 129-151.
- b21. MARSDEN, O., BOGEY, C. & BAILLY, C., 2005, High-order curvilinear simulations of flows around non-Cartesian bodies, *Journal of Computational Acoustics*, **13**(4), 731-748.
- b22. BOGEY, C. & BAILLY, C., 2006, Investigation of downstream and sideline subsonic jet noise using Large Eddy Simulation, *Theoretical and Computational Fluid Dynamics*, **20**(1), 23-40.
- b23. BOGEY, C. & BAILLY, C., 2006, Large eddy simulations of round jets using explicit filtering with / without dynamic Smagorinsky model, *International Journal of Heat and Fluid Flow*, **27**, 603-610.
- b24. BOGEY, C. & BAILLY, C., 2006, Large Eddy Simulations of transitional round jets : influence of the Reynolds number on flow development and energy dissipation, *Physics of Fluids*, **18**, 065101, 1-14.
- b25. BERLAND, J., BOGEY, C. & BAILLY, C., 2006, Low-dissipation and low-dispersion fourth-order Runge-Kutta algorithm, *Computer & Fluids*, **35**(10), 1459-1463.
- b26. BOGEY, C. & BAILLY, C., 2006, Computation of a high Reynolds number jet and its radiated noise using large eddy simulation based on explicit filtering, *Computer & Fluids*, **35**(10), 1344-1358.
- b27. PIOT, E., CASALIS, G., MULLER, F. & BAILLY, C., 2006, Investigation of the PSE approach for subsonic and supersonic hot jets. Detailed comparisons with LES and linearized Euler equations results, *International Journal of Aeroacoustics*, **5**(4), 361-393.
- b28. BERLAND, J., BOGEY, C., MARSDEN, O. & BAILLY, C., 2007, High-order, low dispersive and low dissipative explicit schemes for multi-scale and boundary problems, *Journal of Computational Physics*, **224**(2), 637-662.
- b29. BOGEY, C., BARRÉ, S., FLEURY, S., BAILLY, C. & JUVÉ D., 2007, Experimental study of the spectral properties of near-field and far-field jet noise, *International Journal of Aeroacoustics*, **6**(2), 73-92.
- b30. BOGEY, C. & BAILLY, C., 2007, An analysis of the correlations between the turbulent flow and the sound pressure field of subsonic jets, *Journal of Fluid Mechanics*, **583**, 71-97.
- b31. BERLAND, J., BOGEY, C. & BAILLY, C., 2007, Numerical study of screech generation in a planar supersonic jet, *Physics of Fluids*, **19**, 075105, 1-14.
- b32. BOGEY, C. & BAILLY, C., 2007, On the application of explicit spatial filtering to the variables or fluxes of linear equations, *Journal of Computational Physics*, **225**(2), 1211-1217.
- b33. BARRÉ, S., BOGEY, C. & BAILLY, C., 2008, Direct simulation of isolated elliptic vortices and of their radiated field, *Theoretical and Computational Fluid Dynamics*, **22**(1), 65-82.
- b34. MARSDEN, O., BOGEY, C. & BAILLY, C., 2008, Direct noise computation of the turbulent flow around a zero-incidence airfoil, *AIAA Journal*, **46**(4), 874-883.
- b35. BOGEY, C., BARRÉ, S. & BAILLY, C., 2008, Direct computation of the noise generated by subsonic jets originating from a straight pipe flow, *International Journal of Aeroacoustics*, **7**(1), 1-22.
- b36. BERLAND, J., BOGEY, C., & BAILLY, C., 2008, Investigation using statistical closure theory of the influence of the filter shape on scale separation in large-eddy-simulations, *Journal of Turbulence*, **9**(21), 1-22.
- b37. BERLAND, J., BOGEY, C., & BAILLY, C., 2008, A study of differentiation errors in large-eddy simulations based on the EDQNM theory *Journal of Computational Physics*, **227**(18), 8314-8340.

- b38. FLEURY, V., BAILLY, C., JONDEAU, E., MICHARD, M. & JUVÉ, D., 2008, Space-time correlations in two subsonic jets using dual-PIV measurements, *AIAA Journal*, **46**(10), 2498-2509.
- b39. BOGEY, C., DE CACQUERAY, N. & BAILLY, C., 2009, A shock-capturing methodology based on adaptive spatial filtering for high-order non-linear computations, *Journal of Computational Physics*, **228**(5), 1447-1465.
- b40. BOGEY, C., BARRÉ, S., JUVÉ, D. & BAILLY, C., 2009, Simulation of a hot coaxial jet : direct noise prediction and flow-acoustics correlations, *Physics of Fluids*, **21**, 035105, 1-14.
- b41. BOGEY, C. & BAILLY, C., 2009, Turbulence and energy budget in a self-preserving round jet : direct evaluation using large-eddy simulation, *Journal of Fluid Mechanics*, **627**, 129-160.
- b42. RICOT, D., MARIÉ, S., SAGAUT, P. & BAILLY, C., 2009, Lattice Boltzmann method with selective viscosity filter, *Journal of Computational Physics*, **228**(12), 4478-4490.
- b43. EMMERT, T., LAFON, P. & BAILLY, C., 2009, Numerical study of self-induced transonic flow oscillations behind a sudden duct enlargement, *Physics of Fluids*, **21**, 106105, 1-15.
- b44. BAILLY, C., BOGEY, C. & MARSDEN, O., 2010, Progress in Direct Noise Computation, *International Journal of Aeroacoustics*, **9**(1-2), 123-143.
- b45. DESVIGNE, D., MARSDEN, O., BOGEY, C. & BAILLY, C., 2010, Development of non-centered wavenumber-based optimized interpolation schemes with amplification control of overlapping grids, *SIAM Journal on Scientific Computing*, **32**(34), 2074-2098.
- b46. BAILLY, C., BOGEY, C. & CANDEL, S., 2010, Modelling of sound generation by turbulent reacting flows, *International Journal of Aeroacoustics*, **9**(4-5), 461-489.
- b47. ARGUILLAT, B., RICOT, D., BAILLY, C. & ROBERT, G., 2010, Measured wavenumber - frequency spectrum associated with acoustic and aerodynamic wall pressure fluctuations, *Journal of the Acoustical Society of America*, **128**(4), 1647-1655.
- b48. BOGEY, C. & BAILLY, C., 2010, Influence of nozzle-exit boundary-layer conditions on the flow and acoustic fields of initially laminar jets, *Journal of Fluid Mechanics*, **663**, 507-538.
- b49. BOGEY, C., DE CACQUERAY, N. & BAILLY, C., 2011, Finite differences for coarse azimuthal discretization and for reduction of effective resolution near origin of cylindrical flow equations, *Journal of Computational Physics*, **230**(4), 1134-1146.
- b50. BOGEY, C., MARSDEN, O. & BAILLY, C., 2011, Large-Eddy Simulation of the flow and acoustic fields of a Reynolds number 10^5 subsonic jet with tripped exit boundary layers, *Physics of Fluids*, **23**, 035104, 1-20.
- b51. ANDRÉ, B., CASTELAIN, T. & BAILLY, C., 2011, A shock tracking procedure for studying screech induced oscillations, *AIAA Journal*, **49**(7), 1163-1166.
- b52. BERLAND, J., LAFON, P., DAUDE, F., CROUZET, F., BOGEY, C. & BAILLY, C., 2011, Filter shape dependence and effective scale separation in large-eddy simulations based on relaxation filtering, *Computer & Fluids*, **47**(1), 65-74.
- b53. DE CACQUERAY, N., BOGEY, C. & BAILLY, C., 2011, Investigation of a high-Mach-number overexpanded jet using large-eddy simulation, *AIAA Journal*, **49**(10), 2171-2182.
- b54. BOGEY, C., MARSDEN, O. & BAILLY, C., 2011, On the spectra of nozzle-exit velocity disturbances in initially nominally turbulent, transitional jets, *Physics of Fluids*, **23**, 091702, 1-4.
- b55. ANDRÉ, B., CASTELAIN, T. & BAILLY, C., 2011, Experimental study of flight effects on screech in underexpanded jets, *Physics of Fluids*, **23**, 126102, 1-14.
- b56. DAUDE, F., BERLAND, J., EMMERT, T., LAFON, P., CROUZET, F. & BAILLY, C., 2012, A high-order finite-difference algorithm for direct computation of aerodynamic sound, *Computers & Fluids*, **61**, 46-63.
- b57. BOGEY, C., MARSDEN, O. & BAILLY, C., 2012, Influence of initial turbulence level on the flow and sound fields of a subsonic jet at a diameter-based Reynolds number of 10^5 , *Journal of Fluid Mechanics*, **701**, 352-385.

- b58. MARSDEN, O., BAILLY, C., BOGEY, C. & JONDEAU, E., 2012, Investigation of flow features and acoustic radiation of a round cavity, *Journal of Sound and Vibration*, **331**(15), 3521-3543.
- b59. ANDRÉ, B., CASTELAIN, T. & BAILLY, C., 2012, Shock oscillations in a supersonic jet exhibiting antisymmetrical screech, *AIAA Journal*, **50**(9), 2017-2020.
- b60. SERRE, G., LAFON, P., GLOERFELT, X. & BAILLY, C., 2012, Reliable reduced-order models for time-dependent linearized Euler equations, *Journal of Computational Physics*, **231**, 5176-5194.
- b61. BOGEY, C., MARSDEN, O. & BAILLY, C., 2012, Effects of moderate Reynolds numbers on subsonic round jets with highly disturbed nozzle-exit boundary layers, *Physics of Fluids*, **24**, 105107, 1-24.
- b62. MARSDEN, O., BOGEY, C. & BAILLY, C., 2012, Investigation of flow features around shallow round cavities subject to subsonic grazing flow, *Physics of Fluids*, **24**, 125107, 1-24.
- b63. ANDRÉ, B., CASTELAIN, T. & BAILLY, C., 2013, Broadband shock-associated noise in screeching and non-screeching underexpanded supersonic jets, *AIAA Journal*, **51**(3), 665-673.
- b64. DARGAUD, J.B., TROYES, J., LAMET, J.-M., TESSÉ, L., VUILLOT, F. & BAILLY, C., 2013, A numerical study of solid rocket motor ignition overpressure wave including infrared radiation, *Journal of Propulsion and Power*, **30**(1), 164-174.
- b65. LAFITTE, A., LE GARREC, T., BAILLY, C. & LAURENDEAU, E., 2014, Turbulence generation from a sweeping-based stochastic model, *AIAA Journal*, **52**(2), 281-292.
- b66. KREMER, F., BOGEY, C. & BAILLY, C., 2014, Semi-implicit Runge-Kutta schemes : development and application to compressible channel flow, *AIAA Journal*, **52**(3), 516-527.
- b67. ANDRÉ, B., CASTELAIN, T. & BAILLY, C., 2014, Experimental investigation of underexpanded supersonic jets, *Shock Waves*, **24**(1), 21-32.
- b68. MARSDEN, O., BOGEY, C. & BAILLY, C., 2014, A study of infrasound propagation based on high-order finite difference solutions of the Navier-Stokes equations, *J. Acoust. Soc. Am.*, **135**(3), 1083-1095.
- b69. SABATINI, R. & BAILLY, C., 2015, A numerical algorithm for computing acoustic and vortical spatial instability waves, *AIAA Journal*, **53**(3), 692-702.
- b70. BAILLY, C. & FUJII, K., 2016, High-speed jet noise, *Mechanical Engineering Reviews, Journals of the Japan Society of Mechanical Engineers*, **3**(1), 1-13.
- b71. SABATINI, R., MARSDEN, O., BAILLY, C. & BOGEY, C., 2016, A numerical study of nonlinear infrasound propagation in a windy atmosphere, *J. Acoust. Soc. Am.*, **140**(1), 641-656.
- b72. SABATINI, R., BAILLY, C., MARSDEN, O. & GAINVILLE, O., 2016, A numerical study of the vibrational relaxation effects on long-range atmospheric propagation of infrasound waves based on a generalized Burgers' equation, *Geophysical Journal International*, **207**, 1432-1445.
- b73. TROIAN, R., DRAGNA, D., BAILLY, C. & GALLAND, M.A., 2016, Broadband liner impedance reduction for multimodal acoustic propagation in the presence of a mean flow, *J. Sound Vib.*, **392**, 200-216.
- b74. ANDRÉ, B., CASTELAIN, T. & BAILLY, C., 2017, Experimental study of flight effects on slightly underexpanded supersonic jets, *AIAA Journal*, **55**(1), 57-67.
- b75. MERCIER, B., CASTELAIN, T. & BAILLY, C., 2017, Experimental characterization of the screech feedback loop in underexpanded round jets, *Journal of Fluid Mechanics*, **824**, 202-229.
- b76. LECLÈRE, Q., PEREIRA, A., BAILLY, C., ANTONI, J. & PICARD, C., 2017, A unified formalism for acoustic imaging based on microphone array measurements, *International Journal of Aeroacoustics*, **16**(4-5), 431-456.
- b77. MERCIER, B., CASTELAIN, T., JONDEAU, E. & BAILLY, C., 2018, Density fluctuations measurement by Rayleigh scattering using a single photomultiplier, *AIAA Journal*, **56**(4), 1310-1316.
- b78. MERCIER, B., CASTELAIN, T. & BAILLY, C., 2018, Experimental investigation of the turbulent density - far field sound correlations in compressible jets, *International Journal of Aeroacoustics*, **17**(4-5), 521-540.
- b79. SABATINI, R., MARSDEN, O., BAILLY, C. & GAINVILLE, O., 2018, Three-dimensional direct numerical simulation of infrasound propagation in the Earth's atmosphere, to appear in the *Journal of Fluid Mechanics*.

- b80. YSER, P. & BAILLY, C., 2018, A high-order variational multiscale model in finite elements applied to the LEISA-2 configuration, to appear in *AIAA Journal*.
- b81. MERCIER, B., CASTELAIN, T. & BAILLY, C., 2019, Experimental study of the coherent vorticity in slightly under-expanded supersonic screeching jets, in revision for *International Journal of Aeroacoustics*.
- b82. LANGENAIS, A., VUILLOT, F., PEYRET, C., CHAINERAY, G. & BAILLY, C., 2019, Assessment of a two-way coupling methodology between a flow and a high-order nonlinear acoustic unstructured solvers, to appear in *Flow, Turbulence and Combustion*.

Refereed publications in the Proceedings of the French Academy of Sciences, Paris

- c1. GRÈVERIE, L. & BAILLY, C., 1998, Construction d'un opérateur de propagation à partir des équations d'Euler linéarisées, *C. R. Acad. Sci. Paris, Iib*, **326**(11), 741-746.
- c2. BOGEY, C., BAILLY, C. & JUVÉ, D., 1999, Calcul direct du rayonnement acoustique d'une couche de mélange par macrosimulation, *C. R. Acad. Sci. Paris, Iib*, **327**(10), 1029-1034.
- c3. BOGEY, C., BAILLY, C. & JUVÉ, D., 2000, Calcul du rayonnement acoustique d'une couche de mélange à l'aide des équations d'Euler linéarisées, *C. R. Acad. Sci. Paris, Iib*, **328**(4), 341-347.
- c4. GLOERFELT, X., BAILLY, C. & JUVÉ, D., 2000, Calcul direct du rayonnement acoustique d'un écoulement affleurant une cavité, *C. R. Acad. Sci. Paris, Iib*, **328**(8), 625-631.
- c5. HÉRON, N., BAILLY, C. & CANDEL, S., 2001, Modélisation du rayonnement acoustique de jets coaxiaux supersoniques, *C. R. Acad. Sci. Paris, Iib*, **329**(7), 497-502.
- c6. GLOERFELT, X., BAILLY, C. & JUVÉ, D., 2002, Application de méthodes intégrales au calcul du bruit de cavité, *C. R. Méc., Acad. Sci. Paris, Iib*, **330**(1), 13-20.
- c7. BOGEY, C. & BAILLY, C., 2002, Downstream subsonic jet noise : link with vortical structures intruding into the jet core, *C. R. Méc., Acad. Sci. Paris, Iib*, **330**(8), 527-533.
- c8. MARSDEN, O., GLOERFELT, X. & BAILLY, C., 2003, Direct noise computation of adaptive control applied to a cavity flow, *C. R. Méc., Acad. Sci. Paris*, **331**(6), 423-429.
- c9. BAILLY, C., BOGEY, C. & GLOERFELT, X., 2005, Some useful hybrid approaches for predicting aerodynamic noise, *C. R. Méc., Acad. Sci. Paris*, **333**(9), 666-675.
- c10. FLEURY, V., BAILLY, C. & JUVÉ, D., 2005, Shear-layer acoustic radiation in an excited subsonic jet : experimental study, *C. R. Méc., Acad. Sci. Paris*, **333**(10), 746-753.
- c11. FLEURY, V., BAILLY, C. & JUVÉ, D., 2005, Shear-layer acoustic radiation in an excited subsonic jet : models for vortex pairing and superdirective noise, *C. R. Méc., Acad. Sci. Paris*, **333**(10), 754-761.
- c12. ANDRÉ, B., CASTELAIN, T. & BAILLY, C., 2013, Effect of a tab on the aerodynamical development and noise of an underexpanded supersonic jet, *C. R. Méc., Acad. Sci. Paris*, **341**, 659-666.

Refereed publications in french Journals

- d1. BOGEY, C. & BAILLY C., 2000, Génération de bruit par appariement de tourbillons dans les zones cisailées, *Mécanique et Industries*, **1**, 487-497.

Book chapters

- e1. COMTE-BELLOT, G., BAILLY, C. & BLANC-BENON, P., 1996, Modeling tools for flow noise and sound propagation through turbulence (lecture 6), in *New tools in turbulence modelling*, Les Houches School, may 21-31, ed. by O. Métais & J. Ferziger, Springer-Verlag, Berlin, **5**, ISBN 3-540-63090-2, 141-162.
- e2. BAILLY, C., 1997, Modelling of the turbulent mixing noise. Application to subsonic and supersonic jet noise, *von Karman Institute for Fluids Dynamics*, Lecture series 1997-07, september 15-18, 47 pages, ISSN 0377-8312.

- e3. JUVÉ D., BAILLY C., DURANT C. & ROBERT G., 1999, Vibroacoustics of flow-excited structures, in *Fluid-Structure Interactions in Acoustics*, D. Habault ed., CISM courses and lectures, **396**, Springer-Wien-NewYork, ISBN 3-211-83147-9, 51-86.
- e4. BOGEY, C. & BAILLY, C., 2000, Modeling and numerical simulation of free shear flows, *von Karman Institute for Fluid Dynamics*, Lectures Series 2000-02, February 14-17, 50 pages, ISSN 0370-8312.
- e5. BOGEY, C. & BAILLY, C., 2007, Plane and axisymmetric mixing layers, chapter 6.1, in *LES for Acoustics*, ed. by C. Wagner, T. Hüttl & P. Sagaut, *Cambridge University Press*, ISBN-13 : 9780521871440, 280-310.
- e6. GLOERFELT, X., BOGEY, C. & BAILLY, C., 2007, Cavity noise, chapter 6.3, in *LES for Acoustics*, ed. by C. Wagner, T. Hüttl & P. Sagaut, *Cambridge University Press*, ISBN-13 : 9780521871440, 311-322.
- e7. BAILLY, C. & BOGEY, C., 2010, Propulsion System Noise : Jet, in *Encyclopedia of Aerospace Engineering*, Ed. by R. Blockley and W. Shyy, John Wiley & Sons, Ltd., ISBN 978-0-470-75440-5, section 6.2.03, 1-11.
- e8. BAILLY, C., BOGEY, C. & MARSDEN, O., 2012, An introduction to jet noise and control of subsonic mixing noise, in *Aircraft Noise*, Lecture Series 2012-02, von Kármán Institute for Fluid Dynamics, ISBN-13 978-2-87516-029-4, 1-39.
- e9. BAILLY, C., BOGEY, C., MARSDEN, O. & T. CASTELAIN, 2015, Subsonic and supersonic jet mixing noise, in *Aeroengine Noise*, Lecture Series 2015-01, von Kármán Institute for Fluid Dynamics, ISBN-13 978-2-87516-082-9, 1-57.
- e10. BAILLY, C., BOGEY, C. & CASTELAIN, T., 2016, Subsonic and supersonic jet mixing noise, Lecture Series 2016-04, von Kármán Institute for Fluid Dynamics, ISBN-13978-2-87516-110-9, 1-62.

Editorships

- f1. Association Française d'Acoustique, 2010, contribution au *Livre blanc de l'acoustique en France*, SFA, ISBN 978-2-919340-00-2.
- f2. BAILLY, C., Editor, 2012, *Ercoftac Bulletin*, Special issue in Aeroacoustics, **90**.
- f3. BAILLY, C., 2013, book review, Computational Aeroacoustics : A Wave Number Approach by C. Tam, *AIAA Journal*, **51**(10), 2527-2528.
- f4. BAILLY, C., ANDRÉ, B., CASTELAIN, T., HENRY, C., BODARD, G. & PORTA, M., 2014, An analysis of shock noise components, *AerospaceLab*, **7**, AL7-06, 1-8.
- f5. Association Française de Mécanique, 2015, contribution au *Livre Blanc de la recherche en mécanique*, EDP Sciences, ISBN 978-2-7598-1683-5.

Invited lectures

- g1. BAILLY, C. & JUVÉ, D., 1999, Aeroacoustic simulations and stochastic approach using linearized Euler's equations, *2nd Forum Acusticum / 137th ASA Meeting*, 14-19 March, Berlin, **invited speaker**, 2pNSd, 1-4. Voir aussi : *Acustica-Acta Acustica*, **85**, S140 & *J. Acoust. Soc. Am.*, **105**(2), pt. 2, february 99.
- g2. BAILLY, C., BOGEY, C. & JUVÉ, D., 2000, Jet noise computation : direct and hybrid approaches, **invited speaker**, *Jet Noise Workshop*, Ohio Aerospace Institute, November 7-9, NASA CP-2001-211152, 833-890.
- g3. BAILLY, C., BOGEY, C., GLOERFELT, X. & JUVÉ, D., 2001, Recent achievements in computational aeroacoustics, **invited speaker**, 17th International Congress on Acoustics, Rome, 3-7 sept., 1-2.
- g4. BAILLY, C., BOGEY, C. & GLOERFELT, X., 2002, Recent developpement in predicting aerodynamic noise, **invited speaker**, *IMA Conference on Computational Aeroacoustics*, Institute of Mathematics and its Applications, 9-11 april, University of Greenwich, U.K.
- g5. BAILLY, C., BOGEY, C., GLOERFELT, X., 2002, Role of CAA for the investigation of noise mechanisms, **invited speaker**, *Fluids Engineering Division Summer Meeting (FEDSM'02)*, 14-18 july, Montreal, Canada, FEDSM2002-31351.
- g6. BAILLY, C., BOGEY, C., GLOERFELT, X. & JUVÉ, D., 2002, Role of the direct noise calculation in aeroacoustics, **invited speaker**, *CEAS workshop from CFD to CAA*, 7-8 november, Athens, Greece, 1-38 (CD-ROM).

- g7. BAILLY, C., & BOGEY, C., 2003, Jet noise simulation, *4th Computational Aeroacoustics Workshop*, **invited speaker**, 20-22 October, Cleveland, Ohio, USA.
- g8. BOGEY, C., MARSDEN, O. & BAILLY, C., 2005, An overview if the use of the linearized Euler equations in aeroacoustics, **invited speaker** *7th International Conference on Mathematical and Numerical Aspects of Wave Propagation*, WAVES 2005, Brown University, Providence, RI, June 20-24.
- g9. BAILLY, C. & BOGEY, C., 2006, Current understanding of jet-noise mechanisms from compressible large-eddy simulations, **invited speaker**, in proceedings of the *sixth international ERCOFTAC workshop on direct and large eddy simulation (DLES-6)*, Springer, Dordrecht, ISBN-13 : 978-1-4020-4909-5, 39-48.
- g10. BAILLY, C. & BOGEY, C., 2006, Large-Eddy simulation for jet noise prediction, *10th CEAS/ASC Workshop*, Jet noise prediction methodologies : recent developments, **invited speaker**, 28-29 september, Dublin, 1-38 (CD-ROM).
- g11. BAILLY, C. & BOGEY, C., 2007, High-order finite-difference schemes in aeroacoustics **invited speaker**, *Second international conference on high order non-oscillatory methods for wave propagation, transport and flow problems*, University of Trento, Italy, march 26th - 30th.
- g12. BAILLY, C., 2007, Récents progrès de la simulation numérique du bruit d'origine aérodynamique, **invited plenary speaker**, *18^{ème} Congrès Français de Mécanique*, 27 au 31 août, Grenoble.
- g13. BAILLY, C., BOGEY, C. & MARSDEN, O., 2008, Advances in computational aeroacoustics : challenges and issues, **invited speaker**, *7th International ERCOFTAC Symposium on Engineering Turbulence Modelling and Measurements (ETMM7)*, Limassol, Chyprus, 4-6 June, 612-621.
- g14. BAILLY, C., BOGEY, C. & MARDEN, O., 2009, Qualités des prédictions issues du calcul direct du bruit aérodynamique, **invited speaker**, *44ème Colloque d'Aérodynamique Appliquée*, AAAF, Ecole Centrale de Nantes, 23-25 mars.
- g15. BOGEY, C. & BAILLY, C., 2010, On the importance of specifying nozzle-exit conditions in jet noise prediction, **invited speaker**, *IUTAM Symposium on Computational Aero-Acoustics for Aircraft Noise* 29-31 March, University of Southampton, UK.
- g16. BAILLY, C., BOGEY, C. & MARSDEN, O., 2010, Non-linear aspects in noise generation and propagation, **invited speaker**, *Int'l Summer School and Workshop on Non-Normal and Nonlinear Effects in Aero- and Thermoacoustics*, Munich, May 17-18.
- g17. BAILLY, C., BOGEY, C. & MARSDEN, O., 2010, Some nonlinear aspects in aeroacoustics, **invited speaker**, *L'acoustique non linéaire, de la Terre au nano*, école thématique CNRS, île d'Oléron, 20-25 juin.
- g18. BAILLY, C., BOGEY, C. & MARSDEN, O., 2010, Solving aeroacoustic problems with high-fidelity compressible large-eddy simulations, **invited plenary speaker**, *Fluids Engineering Division Summer Meeting (FEDSM2010)* August 1-4, Montreal, Canada.
- g19. BAILLY, C., BOGEY, C. & MARSDEN, O., 2010, Solving aeroacoustic problems with high-fidelity compressible large-eddy simulations, **invited plenary speaker**, *60th National Congress of Theoretical and Applied Mechanics*, Tokyo Institute of Technology, Tokyo, Japan, March 8-10.
- g20. BAILLY, C., ANDRÉ, B. & CASTELAIN, T., 2014, The noise of underexpanded screeching jets, **invited speaker**, *Anglo-French Physical Acoustics Conference*, 15-17 January, Surrey, UK.
- g21. SABATINI, R., MARSDEN, O., BAILLY, C., BOGEY, C. & GAINVILLE, O., 2015, Propagation of infrasonic waves in the atmosphere, **invited speaker**, *22e Congrès Français de Mécanique (CFM2015)*, 24 - 28 août, Lyon, France.
- g22. BAILLY, C., SABATINI, R., MARSDEN, O. & BOGEY, C., 2016, Assessment of numerical accuracy for the direct computation of sound propagation, **invited speaker**, *171st Meeting of the Acoustical Society of America*, Salt Lake City, May, USA.
- g23. BAILLY, C., 2019, (plenary lecture) *FSSIC2019 Conference* in Chania, Crete, 27-30 August.

Selected papers published in books

- h1. BAILLY, C., THÉVENIN, R. & JUVÉ, D., 1997, Application of a DRP scheme to aeroacoustic flow problems, in *Theoretical and Computational Acoustics '97*, 14-18 July, Newark (NJ), USA, World Scientific, ISBN 981-02-3463-5, 595-608.
- h2. BOGEY, C. & BAILLY, C., 2003, Selective filtering versus eddy viscosity for subgrid modelling in the LES of a subsonic jet, in proceedings of the *fifth international ERCOFTAC workshop on direct and large eddy simulation (DLES-5)*, August 27-29, Munich University of Technology, Germany, ed. by R. Friedrich, B.J. Geurts & O. Métais, Ercoftac series vol. **9**, 23-30, Kluwer, Dordrecht, ISBN 1-4020-2032-5.
- h3. BOGEY, C. & BAILLY, C., 2004, Study of the effective Reynolds number of jets computed by LES, in *Advances in Turbulence X*, proceedings of the *10th European Turbulence Conference*, June 29 - July 2, Trondheim, Norway, ed. by H.I. Anderson & P.-A. Krogstad, CIMNE, Barcelona, ISBN 84-95999-55-2, 852.
- h4. BOGEY, C. & BAILLY, C., 2006, Computation of the self-similarity region of a turbulent round jet using Large Eddy Simulation in proceedings of the *sixth international ERCOFTAC workshop on direct and large eddy simulation (DLES-6)*, Springer, Dordrecht, ISBN-13 : 978-1-4020-4909-5, 285-293.
- h5. BOGEY, C. & BAILLY, C., 2007, Turbulence and energy balance in an axisymmetric jet computed by large eddy simulation, in *Advances in Turbulence XI*, proceedings of the *11th European Turbulence Conference*, 25-28 June, Porto, Portugal, Springer-Verlag, Berlin Heidelberg, ISBN 978-3-540-72603-6, 316-318.
- h6. BOGEY, C. & BAILLY, C., 2007, Large Eddy Simulation of a self-preserving turbulent jet using high-order schemes, in *New Trends in Fluid Mechanics Research*, proceedings of the *5th International Conference on Fluid Mechanics*, Shanghai, China, 15-19 August, Tsinghua University Press & Springer, ISBN 978-7-302-15894-3, 95-98.
- h7. BOGEY, C. & BAILLY, C., 2008, Assessment of dissipation in LES based on explicit filtering from the computation of kinetic energy budget, in proceedings of *Quality and Reliability in Large-Eddy Simulations*, 24-26 oct., Leuven, Belgium, ERCOFTAC Series, J. Meyers, B. Geurts, P. Sagaut Ed., Springer, ISBN 978-1-4020-8577-2, 81-92.
- h8. BERLAND, J., BOGEY, C. & BAILLY, C., 2008, Analysis of numerical error reduction in explicitly filtered LES using two-point turbulence closure, in proceedings of *Quality and Reliability in Large-Eddy Simulations*, 24-26 oct., Leuven, Belgium, ERCOFTAC Series, J. Meyers, B. Geurts, P. Sagaut Ed., Springer, ISBN 978-1-4020-8577-2, 143-154.
- h9. BOGEY, C. & BAILLY, C., 2008, Direct computation of infrasound propagation in inhomogeneous atmosphere using a low-dispersion and low-dissipation algorithm, in *Computational Fluid Dynamics 2008*, edited by H. Choi, H.G. Choi & J.Y. Yoo, Springer, ISBN 978-3-642-01272-3, 113-118.
- h10. BOGEY, C., DE CACQUERAY, N. & BAILLY, C., 2008, A dynamic spatial filtering procedure for shock capturing in high-order computations, in *Computational Fluid Dynamics 2008*, edited by H. Choi, H.G. Choi & J.Y. Yoo, Springer, ISBN 978-3-642-01272-3, 417-422.
- h11. SCHULZE, J., SESTERHENN, J. SCHMID, P., BOGEY, C., DE CACQUERAY, N., BERLAND, J. & BAILLY, C., 2009, Numerical simulation of supersonic jet noise, in *Numerical Simulation of Turbulent Flows and Noise Generation*, Springer, ISBN 978-3-540-89955-6, 29-46.
- h12. BOGEY, C. & BOGEY, C., 2010, On the importance of specifying appropriate nozzle-exit conditions in jet noise prediction, IUTAM Symposium on Computational Aero-Acoustics for Aircraft Noise Prediction, *Procedia Engineering*, **6**, 38-43.
- h13. BOGEY, C. & BAILLY, C., 2011, Influence of Reynolds number and grid resolution on large-eddy simulations of self-similar jets based on relaxation filtering, *Quality and Reliability of Large-Eddy Simulations II*, 9-11 September, Pisa, Italy, 319-328, in ERCOFTAC Series, M.V. Salvetti, B. Geurts, J. Meyers, P. Sagaut Ed., Springer, ISBN 978-94-007-0230-1.
- h14. SABATINI, R., MARSDEN, O., BAILLY, C. & GAINVILLE, O., 2015, Numerical simulation of infrasound propagation in the Earth's atmosphere : study of a stratospherical arrival pair, *AIP Conference Proceedings*, Recent developments in nonlinear acoustics, ed. by Blanc-Benon, P., Sparrow, V.W. & Dragna, D., **1685**, ISBN 978-0-7354-1332-0, 090002, 1-4.

Proceedings of peer-reviewed international conferences

- i1. BAILLY, C., BÉCHARA, W., LAFON, P. & CANDEL, S., 1993, Jet noise predictions using a $k - \epsilon$ turbulence model, *15th AIAA Aeroacoustics Conference*, october 25-27, Long Beach (CA), USA, AIAA Paper 93-4412, 1-8.
- i2. BAILLY, C., LAFON, P. & CANDEL, S., 1994, Stochastic approach to noise modelling for free turbulent flows, *Flow acoustics : a technology audit*, edited by J. Ffowcs Williams & G. Comte-Bellot, 11-13 juillet, Ecole Centrale de Lyon, 1-5.
- i3. BAILLY, C., LAFON, P. & CANDEL, S., 1995, A stochastic approach to compute noise generation and radiation of free turbulent flows, *1st AIAA/CEAS Aeroacoustics Conference*, june 12-15, München, Germany, AIAA Paper 95-092, 1-6.
- i4. BAILLY, C., CANDEL, S. & LAFON, P., 1996, Computation of noise generation and propagation for free and confined turbulent flows, *2nd AIAA/CEAS Aeroacoustics Conference*, 6-8 may, State College (PA), USA, AIAA Paper 96-1732, 1-8.
- i5. BAILLY, C., 1997, A statistical description of supersonic jet mixing noise, *3rd AIAA/CEAS Aeroacoustics Conference*, 12-14 may, Atlanta (GA), USA, AIAA Paper 97-1575, 1-9.
- i6. BAILLY, C. & JUVÉ, D., 1998, Numerical solution of acoustic propagation problems using linearized Euler's equations, *4th AIAA/CEAS Aeroacoustics Conference*, 2-4 june, Toulouse, AIAA Paper 98-2267, 1-11.
- i7. BAILLY, C. & BLANC-BENON, P., 1998, Stochastic turbulent fields for acoustic numerical simulations, *Symposium on Aircraft Noise*, 15-20 november, Anaheim (CA), USA, ASME Noise Control and Acoustics Division, NCA-vol. 25, 21-29.
- i8. BOGEY, C., BAILLY, C. & JUVÉ, D., 1999, CAA approaches applied to mixing layer noise computation using LES, *2nd Forum Acusticum / 137th ASA Meeting*, 14-19 March, Berlin, 2pNSe1, 1-4. Voir aussi : *Acustica-Acta Acustica*, **85**, S142 & *J. Acoust. Soc. Am.*, **105**(2), pt. 2, february 99.
- i9. BAILLY, C. & JUVÉ, D., 1999, A stochastic approach to compute subsonic noise using linearized Euler's equations, *5th AIAA/CEAS Aeroacoustics Conference*, 10-12 may, Greater Seattle (WA), USA, AIAA Paper 99-1872, 1-11.
- i10. BOGEY, C., BAILLY, C. & JUVÉ, D., 1999, Computation of mixing layer noise using Large Eddy Simulation, *5th AIAA/CEAS Aeroacoustics Conference*, 10-12 may, Greater Seattle (WA), USA, AIAA Paper 99-1871, 1-11.
- i11. SEROR, C., SAGAUT, P., BAILLY, C. & JUVÉ, D., 1999, Subgrid scale contribution to noise production in decaying isotropic turbulence, *5th AIAA/CEAS Aeroacoustics Conference*, 10-12 may, Greater Seattle (WA), USA, AIAA Paper 99-1853, 1-11.
- i12. JUVÉ, D. & BAILLY, C., 1999, Numerical simulations of aerodynamic noise, *Sixth International Congress on Sound and Vibration*, 5-8 july, Copenhagen, Denmark, 3627-3630.
- i13. BAILLY, C., 1999, Computation of generation and radiation of acoustic waves in the presence of a supersonic flow, *Third Computational Aeroacoustics Workshop on Benchmark Problems*, Nov. 8-10, 1999, Ohio Aerospace Institute, Brookpark / Cleveland, Ohio, NASA CP-2000-209790, 283-294.
- i14. BOGEY, C., BAILLY, C. & JUVÉ, D., 2000, Computation of the sound radiated by a 3-D jet using Large Eddy Simulation, *6th AIAA/CEAS Aeroacoustics Conference*, 12-14 june, Lahaina (HI), USA, AIAA Paper 2000-2009, 1-11.
- i15. BAILLY, C., BOGEY, C. & JUVÉ, D., 2000, Noise computation using source terms in the Linearized Euler equations, *6th AIAA/CEAS Aeroacoustics Conference*, 12-14 june, Lahaina (HI), USA, AIAA Paper 2000-2047, 1-12.
- i16. SEROR, C., SAGAUT, P., BAILLY, C. & JUVÉ, D., 2000, Sound generated by high speed rectangular jet using large eddy simulation, *7th International Congress on Sound and Vibration*, 4-7 july, Garmisch-Partenkirchen, Germany, 1171-1177. ONERA, TP 2000-145.
- i17. BOGEY, C., BAILLY, C. & JUVÉ, D., 2001, Sound computing using Lighthill's analogy : effects of shear-noise, *7th AIAA/CEAS Aeroacoustics Conference*, 28-30 may, Maastricht, The Netherlands, AIAA Paper 2001-2255, 1-11.

- i18. GLOERFELT, X., BAILLY, C. & JUVÉ, D., 2001, Computation of the noise radiated by a subsonic cavity using direct simulation and acoustic analogy, *7th AIAA/CEAS Aeroacoustics Conference*, 28-30 may, Maastricht, The Netherlands, AIAA Paper 2001-2226, 1-11.
- i19. HÉRON, N., LEMAIRE, S., CANDEL, S. & BAILLY, C., 2001, Coaxial-jet-noise predictions from statistical and stochastic source models, *7th AIAA/CEAS Aeroacoustics Conference*, 28-30 may, Maastricht, The Netherlands, AIAA Paper 2001-2205, 1-8.
- i20. RICOT, D., MAILLARD, V. & BAILLY, C., 2001, Numerical simulation of the unsteady flow past a cavity and application to the sunroof buffeting, *7th AIAA/CEAS Aeroacoustics Conference*, 28-30 may, Maastricht, The Netherlands, AIAA Paper 2001-2112, 1-11.
- i21. BOGEY, C., BAILLY, C. & JUVÉ, D., 2001, Flow field and sound radiation of a Mach 0.9 jet computed by LES, *Symposium on Developments in Computational Aero- and Hydro-Acoustics*, AVT 74 (AGARD), 8-11 october, Manchester, U.K, 13-1 - 13-12.
- i22. GLOERFELT, X., BAILLY, C. & JUVÉ, D., 2001, Direct calculation of cavity noise and validation of acoustic analogies, *Symposium on Developments in Computational Aero- and Hydro-Acoustics*, AVT 74 (AGARD), 8-11 october, Manchester, U.K, 22-1 - 22-12.
- i23. BOGEY, C. & BAILLY, C., 2002, A family of low dispersive and low dissipative schemes for Large Eddy Simulation and for sound propagation, *8th AIAA/CEAS Aeroacoustics Conference*, 17-19 june, Breckenridge (CO), USA, AIAA Paper 2002-2509, 1-11.
- i24. GLOERFELT, X., BOGEY, C., BAILLY, C. & JUVÉ, D., 2002, Aerodynamic noise induced by laminar and turbulent boundary layers over rectangular cavities, *8th AIAA/CEAS Aeroacoustics Conference*, 17-19 june, Breckenridge (CO), USA, AIAA Paper 2002-2476, 1-12.
- i25. RICOT, D., MAILLARD, V. & BAILLY, C., 2002, Numerical simulation of unsteady cavity flow using Lattice Boltzmann Method, *8th AIAA/CEAS Aeroacoustics Conference*, 17-19 june, Breckenridge (CO), USA, AIAA Paper 2002-2532, 1-11.
- i26. HÉRON, N., RAVACHOL, M., CANDEL, S. & BAILLY, C., 2002, Hot-jet-noise predictions from statistical source models, *8th AIAA/CEAS Aeroacoustics Conference*, 17-19 june, Breckenridge (CO), USA, AIAA Paper 2002-2453, 1-8.
- i27. BOGEY, C. & BAILLY, C., 2002, LES of a high Reynolds number jet for acoustics, *ERCOFTAC Workshop on LES for Acoustics*, 7-8 october, DLR Göttingen, Germany, 1-12.
- i28. GLOERFELT, X., BOGEY, C. & BAILLY, C., 2002, LES of the noise radiated by a flow over a rectangular cavity, *ERCOFTAC Workshop on LES for Acoustics*, 7-8 october, DLR Göttingen, Germany, 1-12.
- i29. BOGEY, C. & BAILLY, C., 2002, Direct computation of the sound of a high Reynolds number subsonic jet, *CEAS workshop from CFD to CAA*, 7-8 november, Athens, Greece, 1-21 (CD-ROM).
- i30. GLOERFELT, X., BOGEY, C. & BAILLY, C., 2002, A case of intermittency in the noise radiated by a turbulent cavity flow, *CEAS workshop from CFD to CAA*, 7-8 november, Athens, Greece, 1-17 (CD-ROM).
- i31. BOGEY, C. & BAILLY, C., 2003, LES of a high Reynolds high subsonic jet : effects of the inflow conditions on flow and noise, *9th AIAA/CEAS Aeroacoustics Conference*, 12-13 may, Hilton head, South Carolina, USA, AIAA Paper 2003-3170, 1-11.
- i32. GLOERFELT, X., BOGEY, C. & BAILLY, C., 2003, Numerical investigation of the coexistence of multiple tones in flow-induced cavity noise, *9th AIAA/CEAS Aeroacoustics Conference*, 12-13 may, Hilton head, South Carolina, USA, AIAA Paper 2003-3234, 1-12.
- i33. PÉROT, F., GLOERFELT, X., BAILLY, C. & GIARDI, H., 2003, Numerical prediction of the noise radiated by a cylinder, *9th AIAA/CEAS Aeroacoustics Conference*, 12-13 may, Hilton head, South Carolina, USA, AIAA Paper 2003-3240, 1-11.
- i34. BOGEY, C. & BAILLY, C., 2003, LES of a high Reynolds high subsonic jet : effects of the subgrid scale modellings on flow and noise, *16th AIAA Computational Fluid Dynamics Conference*, 23-26 june, Florida, USA, AIAA Paper 2003-3557, 1-11.

- i35. BOGEY, C. & BAILLY, C., 2003, Selective filtering versus eddy viscosity for subgrid modelling in the LES of a high Reynolds number flow, workshop Direct and Large Eddy Simulation-5, August 27-29, T.U. Munich, Germany, 1-8.
- i36. BAILLY, C. & BOGEY, C., 2003, Radiation and refraction of sound waves through a two-dimensional shear layer, *Fourth Computational Aeroacoustics workshop on benchmark problems*, Ohio Aerospace Institute, October 20-22, NASA CP-2004-212954, 149-154.
- i37. BERLAND, J., BOGEY, C. & BAILLY, C., 2004, Optimized explicit schemes : matching and boundary schemes, and 4th- order Runge-Kutta algorithm, *10th AIAA/CEAS Aeroacoustics Conference*, 10-12 may, Manchester, UK, AIAA Paper 2004-2814, 1-34.
- i38. BOGEY, C. & BAILLY, C., 2004, Investigation of subsonic jet noise using LES : Mach and Reynolds number effects, *10th AIAA/CEAS Aeroacoustics Conference*, 10-12 may, Manchester, UK, AIAA Paper 2004-3023, 1-15.
- i39. MARSDEN, O., BOGEY, C. & BAILLY, C., 2004, High-order curvilinear simulations of flows around non-Cartesian bodies, *10th AIAA/CEAS Aeroacoustics Conference*, 10-12 may, Manchester, UK, AIAA Paper 2004-2813, 1-14.
- i40. PÉROT, F., AUGER, J.-M., GIARDI, H., BAILLY, C. & JUVÉ, D., 2004, Computation of the noise generated by low Mach number flows around a cylinder and a wall-mounted half cylinder, *10th AIAA/CEAS Aeroacoustics Conference*, 10-12 may, Manchester, UK, AIAA Paper 2004-2859, 1-12.
- i41. ARGUILLAT, B., RICOT, D., ROBERT, G. & BAILLY, C., 2005, Measurements of the wavenumber-frequency spectrum of wall pressure fluctuations under turbulent flows, *11th AIAA/CEAS Aeroacoustics Conference*, 23-25 may, Monterey, California, USA, AIAA Paper 2005-2855, 1-18.
- i42. BARRÉ, S., BOGEY, C. & BAILLY, C., 2005, DNS of a high-aspect-ratio elliptic vortex and its generated noise, *11th AIAA/CEAS Aeroacoustics Conference*, 23-25 may, Monterey, California, USA, AIAA Paper 2005-2956, 1-19.
- i43. BOGEY, C. & BAILLY, C., 2005, Investigation of sound sources in subsonic jets using LES data, *11th AIAA/CEAS Aeroacoustics Conference*, 23-25 may, Monterey, California, USA, AIAA Paper 2005-2885, 1-18.
- i44. MARSDEN, O., BOGEY, C. & BAILLY, C., 2005, Noise radiated by a high-Reynolds-number 3-D airfoil, *11th AIAA/CEAS Aeroacoustics Conference*, 23-25 may, Monterey, California, USA, AIAA Paper 2005-2817, 1-11.
- i45. BOGEY, C. & BAILLY, C., 2005, Large Eddy Simulations of round free jets using explicit filtering with/without dynamic Smagorinsky model, *Fourth International Symposium on Turbulence and Shear Flow Phenomena (TSFP-4)*, Williamsburg, VA, USA, 27-29 june, 817-822.
- i46. BARRÉ S., BOGEY, C. & BAILLY, C., 2005, Computation of the jet noise generated by subsonic jets with turbulent exit boundary layers, *Euromech colloquium 467, Turbulent flows and noise generation*, Marseille, 18-20 july, 105-108.
- i47. BERLAND, J., BOGEY, C. & BAILLY, C., 2005, Direct computation of the screech tones generated by a planar underexpanded jet, *Euromech colloquium 467, Turbulent flows and noise generation*, Marseille, 18-20 july, 84-87.
- i48. EMMERT, T., LAFON, P. & BAILLY, C., 2005, High-order schemes for ducted complex configurations with flow singularities, *Euromech colloquium 467, Turbulent flows and noise generation*, Marseille, 18-20 july, 18-21.
- i49. FLEURY, V., BAILLY, C. & JUVÉ, D., 2005, Shear-layer noise generation in an excited jet, *Euromech colloquium 467, Turbulent flows and noise generation*, Marseille, 18-20 july, 141-144.
- i50. BARRÉ, S., BOGEY, C. & BAILLY, C., 2005, Direct numerical computation of the noise generated by free jets, *6th International Symposium on Launcher Technologies*, Munich, Germany, 8-11 nov., 1-2.
- i51. BARRÉ, S., BOGEY, C. & BAILLY, C., 2006, Computation of the Noise Radiated by Jets with Laminar/Turbulent Nozzle-Exit Conditions, *12th AIAA/CEAS Aeroacoustics Conference*, 8-10 may, Cambridge, MA, USA, AIAA Paper 2006-2443, 1-15.

- i52. BARRÉ, S., FLEURY, V., BOGEY, C. & BAILLY, C., 2006, Experimental Study of the Properties of Near-Field and Far-Field Jet Noise, *12th AIAA/CEAS Aeroacoustics Conference*, 8-10 may, Cambridge, MA, USA, AIAA Paper 2006-2443, 1-14.
- i53. BERLAND, J., BOGEY, C. & BAILLY, C., 2006, Large Eddy Simulation of Screech Tone Generation in a Planar Underexpanded Jet, *12th AIAA/CEAS Aeroacoustics Conference*, 8-10 may, Cambridge, MA, USA, AIAA Paper 2006-2496, 1-24.
- i54. EMMERT, T., LAFON, P. & BAILLY, C., 2006, Numerical study of aeroacoustic oscillations in transonic flows downstream a sudden duct enlargement, *12th AIAA/CEAS Aeroacoustics Conference*, 8-10 may, Cambridge, MA, USA, AIAA Paper 2006-2555, 1-13.
- i55. FLEURY, V., BAILLY, C. & JUVÉ, D., 2006, Superdirective and quadrupolar acoustic radiation by vortex pairing in subsonic excited jets, *12th AIAA/CEAS Aeroacoustics Conference*, 8-10 may, Cambridge, MA, USA, AIAA Paper 2006-2496, 1-16.
- i56. MARSDEN, O., BOGEY, C. & BAILLY, C., 2006, Turbulent Boundary Layers Around a NACA 0012 Airfoil and Their Radiated Sound, *12th AIAA/CEAS Aeroacoustics Conference*, 8-10 may, Cambridge, MA, USA, AIAA Paper 2006-2503, 1-11.
- i57. BAILLY, C. & BOGEY, C., 2006, An overview of numerical methods for acoustic wave propagation, *European Conference of Computational Fluid Dynamics, Ecocomas CFD 2006*, September 5-8, Egmond and Zee, The Netherlands, Paper 635, 1-16 (CD-ROM).
- i58. BOGEY, C., BARRÉ, S. & BAILLY, C., 2007, Direct computation of the noise generated by a hot coaxial jet, *13th AIAA/CEAS Aeroacoustics Conference*, 21-23 May, Rome, Italy, AIAA Paper 2007-3587, 1-17.
- i59. EMMERT, T., LAFON, P. & BAILLY, C., 2007, Computation of Aeroacoustic Phenomena in Subsonic and Transonic Ducted Flows, *13th AIAA/CEAS Aeroacoustics Conference*, 21-23 May, Rome, Italy, AIAA Paper 2007-3429, 1-26.
- i60. FLEURY, V., BAILLY, C., M. MICHARD, JUVÉ, D. & JONDEAU, E., 2007, Space-Time Correlation Measurements in Two Subsonic Jets using Dual-PIV Measurements, *13th AIAA/CEAS Aeroacoustics Conference*, 21-23 May, Rome, Italy, AIAA Paper 2007-3615, 1-13.
- i61. BOGEY, C., DE CACQUERAY, N. & BAILLY, C., 2008, Self-adjusting shock-capturing spatial filtering for high-order non-linear computations, *14th AIAA/CEAS Aeroacoustics Conference*, 5-7 May, Vancouver, Canada, AIAA Paper 2008-2968, 1-19.
- i62. DAUDE, F., EMMERT, T., CROUZET, F., LAFON, P. & BAILLY, C., 2008, A high-order algorithm for compressible LES in CAA applications, *14th AIAA/CEAS Aeroacoustics Conference*, 5-7 May, Vancouver, Canada, AIAA Paper 2008-3049, 1-25.
- i63. EMMERT, T., LAFON, P. & BAILLY, C., 2008, Numerical study of aeroacoustic coupling in a subsonic confined cavity, *14th AIAA/CEAS Aeroacoustics Conference*, 5-7 May, Vancouver, Canada, AIAA Paper 2008-2848, 1-11.
- i64. MARSDEN, O., BOGEY, C. & BAILLY, C., 2008, Investigation of flow features and acoustic radiation of a round cavity, *14th AIAA/CEAS Aeroacoustics Conference*, 5-7 May, Vancouver, Canada, AIAA Paper 2008-2851, 1-13.
- i65. PIELLARD, M. & BAILLY, C., 2008, Validation of a hybrid CAA method. Application to the case of a ducted diaphragm at low Mach number, *14th AIAA/CEAS Aeroacoustics Conference*, 5-7 May, Vancouver, Canada, AIAA Paper 2008-2873, 1-28.
- i66. DAUDE, F., EMMERT, T., LAFON, P., CROUZET, F. & BAILLY, C., 2008, On the use of high-order finite difference schemes on overset grids for LES in aeroacoustics, *7th International ERCOFTAC Symposium on Engineering Turbulence Modelling and Measurements (ETMM7)*, Limassol, Chyprus, 4-6 June, 217-222.
- i67. MARSDEN, O., JONDEAU, E., SOUCHOTTE, P. & BAILLY, C., 2008, Experimental investigation of flow features and acoustic radiation of a round cavity under subsonic grazing flow, *7th International ERCOFTAC Symposium on Engineering Turbulence Modelling and Measurements (ETMM7)*, Limassol, Chyprus, 4-6 June, 559-562.

- i68. DAUDE, F., LAFON, P. CROUZET, F. & BAILLY, C., 2008, An overset grid strategy for aeroacoustics and aeroelasticity of moving bodies, *International Workshop on Fluid-Structure Interaction : Theory, Numerics and Applications*, September 29 - October 1, Herrsching am Ammersee (Munich), Germany.
- i69. BOGEY, C., DE CACQUERAY, N. & BAILLY, C., 2008, Recent developments in Direct Noise Computation of turbulent flows : numerical methods and applications, *inter-noise, 37th International Congress and Exposition on Noise Control Engineering*, Shanghai, China, 26-29 oct., 1-8.
- i70. PIELLARD, M. & BAILLY, C., 2009, A hybrid method for Computational Aeroacoustic applied to internal flows, *NAG-DAGA International Conference on Acoustics*, Rotterdam, The Netherlands, March 23-26, NAGDAGA2009/369, 1-3.
- i71. BOGEY, C. & BAILLY, C., 2009, Influence of the nozzle-exit boundary-layer thickness on the flow and acoustic fields of initially laminar jets, *15th AIAA/CEAS Aeroacoustics Conference*, 11-13 May, Miami, USA, AIAA Paper 2009-3409, 1-18.
- i72. BODARD, G., BAILLY, C. & VUILLOT, F., 2009, Matched hybrid approaches to predict jet noise by using large-eddy simulation, *15th AIAA/CEAS Aeroacoustics Conference*, 11-13 May, Miami, USA, AIAA Paper 2009-3316, 1-13.
- i73. BOGEY, C. & BAILLY, C., 2009, Effects of nozzle-exit boundary-layer thickness on the turbulent development of initially laminar circular jets, *Sixth International Symposium on Turbulence and Shear Flow Phenomena (TSFP-6)*, Seoul National University, Seoul, Korea, 22-24 June.
- i74. ARTHURS, D., FITZPATRICK, J., BOGEY, C. & BAILLY, C., 2009, Spectral estimation of the sound sources in jet flows, *EURONOISE 2009*, Edinburgh, Scotland, October 26-28, 1-13.
- i75. PIELLARD, M. & BAILLY, C., 2009, Use of a hybrid method of Computational Aeroacoustics : the ducted diaphragm at low Mach number, *Aachen Acoustics Colloquium*, November 24-25, Aachen, Germany, 1-10.
- i76. ANDRÉ, B., CASTELAIN, T. & BAILLY, C., 2010, Experimental investigation of aerodynamical and acoustical properties of an underexpanded supersonic jet with forward flight effect, *45e Colloque d'Aérodynamique Appliquée : contrôle des écoulements*, 22-24 mars, Marseille, 1-10.
- i77. DE CACQUERAY, N., BOGEY, C. & BAILLY, C., 2010, Large-eddy simulation and direct noise prediction of a shocked and heated jet at a Mach number of 3.30, *45e Colloque d'Aérodynamique Appliquée : contrôle des écoulements*, 22-24 mars, Marseille, 1-9.
- i78. BOGEY, C., MARSDEN, O. & BAILLY, C., 2010, Flow and acoustic fields of Reynolds number 10^5 , subsonic jets with tripped exit boundary layers, *16th AIAA/CEAS Aeroacoustics Conference*, 7-9 June, Stockholm, Sweden, AIAA Paper 2010-3727, 1-18.
- i79. BERLAND, J., LAFON, P., DAUDE, F., CROUZET, F. & BAILLY, C., 2010, Numerical insight into sound sources of a rod-airfoil flow configuration using direct noise calculation, *16th AIAA/CEAS Aeroacoustics Conference*, 7-9 June, Stockholm, Sweden, AIAA Paper 2010-3705, 1-9.
- i80. DE CACQUERAY, N., BOGEY, C. & BAILLY, C., 2010, Direct noise computation of a shocked and heated jet at a Mach number of 3.30, *16th AIAA/CEAS Aeroacoustics Conference*, 7-9 June, Stockholm, Sweden, AIAA Paper 2010-3732, 1-18.
- i81. MARSDEN, O., BOGEY, C. & BAILLY, C., 2010, Numerical investigation of flow features and acoustic radiation around a round cavity, *16th AIAA/CEAS Aeroacoustics Conference*, 7-9 June, Stockholm, Sweden, AIAA Paper 2010-3988, 1-13.
- i82. PIELLARD, M. & BAILLY, C., 2010, Several Computational Aeroacoustics solutions for the ducted diaphragm at low Mach number, *16th AIAA/CEAS Aeroacoustics Conference*, 7-9 June, Stockholm, Sweden, AIAA Paper 2010-3996, 1-14.
- i83. MARSDEN, O., BOGEY, C. & BAILLY, C., 2010, Large-eddy simulation of subsonic round jets with tripped exit boundary layers, *European Conference of Computational Fluid Dynamics, Ecomas CFD 2010*, Lisbon, Portugal, 14-17 June, Paper 1802, 1-7.
- i84. MARSDEN, O., BOGEY, C. & BAILLY, C., 2010, Numerical investigation of flow features and acoustic radiation from round cavities, *European Conference of Computational Fluid Dynamics, Ecomas CFD 2010*, Lisbon, Portugal, 14-17 June, Paper 1812, 1-10.

- i85. BOGEY, C., MARSDEN, O. & BAILLY, C., 2010, Influence of grid resolution on a tripped subsonic round jet at a Reynolds number of 100,000, *3rd Int. Conf. on Jets, Wakes and Separated Flows*, Sept. 27-30, Cincinnati, USA, 1-5.
- i86. BOGEY, C., MARSDEN, O. & BAILLY, C., 2011, A further step towards grid-converged solutions for an initially nominally turbulent jet *17th AIAA/CEAS Aeroacoustics Conference*, 6-8 June, Portland, Oregon, USA, AIAA Paper 2011-2836, 1-11.
- i87. BOGEY, C., MARSDEN, O. & BAILLY, C., 2011, A computational study of the effects of nozzle-exit turbulence level on the flow and acoustic fields of a subsonic jet, *17th AIAA/CEAS Aeroacoustics Conference*, 6-8 June, Portland, Oregon, USA, AIAA Paper 2011-2837, 1-18.
- i88. DE CACQUERAY, N., BOGEY, C., & BAILLY, C., 2011, Investigation of highly supersonic jet noise : non-linear propagation effects and flow-acoustics correlations, *17th AIAA/CEAS Aeroacoustics Conference*, 6-8 June, Portland, Oregon, USA, AIAA Paper 2011-2747, 1-18.
- i89. LAFITTE, A., LAURENDEAU, E., LE GARREC, T. & BAILLY, C., 2011, A study based on the sweeping hypothesis to generate stochastic turbulence *17th AIAA/CEAS Aeroacoustics Conference*, 6-8 June, Portland, Oregon, USA, AIAA Paper 2011-2888, 1-20.
- i90. ANDRÉ, B., CASTELAIN, T. & BAILLY, C., 2011, Experimental exploration of an underexpanded supersonic jet, *28th International Symposium on Shock Waves*, Manchester, UK, 17 - 22 July.
- i91. BOGEY, C., MARSDEN, O. & BAILLY, C., 2011, Investigation of the effects of initial turbulence level of the flow field properties of a subsonic jet, *Seventh International Symposium on Turbulence and Shear Flow Phenomena (TSFP-7)*, Ottawa Convention Center, Ottawa, Canada, July 28-31, 1-6.
- i92. FAUCONNIER, D., DICK, E., BOGEY, C. & BAILLY, C., 2011, Assessment of large-eddy simulation based on relaxation filtering : application to the Taylor-Green vortex, *Seventh International Symposium on Turbulence and Shear Flow Phenomena (TSFP-7)*, Ottawa Convention Center, Ottawa, Canada, July 28-31, 1-6.
- i93. BOGEY, C., MARSDEN, O. & BAILLY, C., 2012, Flow and sound fields of initially tripped jets at Reynolds numbers ranging from 25000 to 200000, *50th AIAA Aerospace Sciences Meeting*, 9-12 January, Nashville, Tennessee, USA.
- i94. BOGEY, C., MARSDEN, O. & BAILLY, C., 2012, Effects of initial shear-layer thickness on turbulent subsonic jets at moderate Reynolds numbers *18th AIAA/CEAS Aeroacoustics Conference*, 4-6 June, Colorado Springs, Colorado, USA, AIAA Paper 2012-2249, 1-18.
- i95. KREMER, F., BOGEY, C. & BAILLY, C., 2012, Semi-implicit Runge-Kutta algorithms for numerical simulation of wall-bounded flows, *18th AIAA/CEAS Aeroacoustics Conference*, 4-6 June, Colorado Springs, Colorado, USA, AIAA Paper 2012-2066, 1-19.
- i96. MARSDEN, O., BOGEY, C. & BAILLY, C., 2012, Depth effects on the flow features and noise signature of shallow cylindrical cavities at a Mach number of 0.25, *18th AIAA/CEAS Aeroacoustics Conference*, 4-6 June, Colorado Springs, Colorado, USA, AIAA Paper 2012-2232, 1-15.
- i97. LAFITTE A., LAURENDEAU E., LE GARREC, T. & BAILLY C., 2012, Prediction of subsonic jet noise relying on a sweeping based turbulence generation process, *18th AIAA/CEAS Aeroacoustics Conference*, 4-6 June, Colorado Springs, Colorado, USA, AIAA Paper 2012-2149, 1-16.
- i98. DAUDE, F., LAFON, P., SERRE, G., CROUZET, F., GLOERFELT, X. & BAILLY, C., 2012, Application of high-order algorithms for linearized aeroelastic predictions, *The 13th International Symposium on Unsteady Aerodynamics, Aeroacoustics and Aeroelasticity of Turbomachines (ISUAAAT-13)*, September 11-14, Tokyo, Japan.
- i99. ANDRÉ, B., CASTELAIN, T. & BAILLY, C., 2012, Experimental study of flight effects on underexpanded supersonic jet noise, *Acoustics 2012 (11ème Congrès Français d'Acoustique & 2012 Annual IOA, Institute of Acoustics, UK)*, 13-17 April, Nantes, 2341-2346.
- i100. HENRY, C., BAILLY, C. & BODARD, G., 2012, Stochastic prediction of broadband shock-associated noise including propagation effects *Acoustics 2012, Acoustics 2012 (11ème Congrès Français d'Acoustique & 2012 Annual IOA, Institute of Acoustics, UK)*, 13-17 April, Nantes, 2335-2340.
- i101. KREMER, F., BOGEY, C. & BAILLY, C., 2012, Investigation of a turbulent channel flow using large eddy simulation, *Acoustics 2012 (11ème Congrès Français d'Acoustique & 2012 Annual IOA, Institute of Acoustics, UK)*, 13-17 April, Nantes, 1267-1272.

- i102. LAFITTE, A., LAURENDEAU, E., LE GARREC, T. & BAILLY, C., 2012, Jet noise prediction using a sweeping based turbulence generation process, *Acoustics 2012 (11ème Congrès Français d'Acoustique & 2012 Annual IOA, Institute of Acoustics, UK)*, 13-17 April, Nantes, 1317-1322.
- i103. LAFON, P., BERLAND, J., CROUZET, F., DAUDE, F. & BAILLY, C., 2012, Numerical study of the aeroacoustic behavior of a subsonic confined cavity, *Acoustics 2012 (11ème Congrès Français d'Acoustique & 2012 Annual IOA, Institute of Acoustics, UK)*, 13-17 April, Nantes, 1341-1346.
- i104. KREMER, F., BOGEY, C. & BAILLY, C., 2013, Influence of resolution and Reynolds number on large-eddy simulations of channel flow using relaxation filtering, *51st Aerospace Sciences Meeting*, 7-10 January, Grapevine, Texas, USA, AIAA Paper 2013-0517, 1-15.
- i105. ANDRÉ, B., CASTELAIN, T. & BAILLY, C., 2013, Experimental study of flight effects on slightly underexpanded supersonic jets, *19th AIAA/CEAS Aeroacoustics Conference*, 27-29 May, Berlin, Germany, AIAA Paper 2013-2079, 1-14.
- i106. LACOMBE, R., LAFON, P., DAUDE, F., CROUZET, F., BAILLY, C. & ZIADA, S., 2013, Numerical and experimental analysis of flow-acoustic interactions in an industrial gate valve, *19th AIAA/CEAS Aeroacoustics Conference*, 27-29 May, Berlin, Germany, AIAA Paper 2013-2158, 1-11.
- i107. LACOMBE, R., LAFON, P., DAUDE, F., CROUZET, F., ZIADA, S. & BAILLY, C., 2013, Experimental and numerical 3D study of flow-sound interaction in a steam-line gate valve, *Proceedings of the ASME Pressure Vessels and Piping Conference*, Vol. 4 Fluid-structure interaction, Paper PVP2013-97662.
- i108. LACOMBE, R., LAFON, P., DAUDE, F., CROUZET, F., ZIADA, S. & BAILLY, C., 2013, Acoustic resonance of a steam line gate valve, *Proceedings of the ASME Pressure Vessels and Piping Conference*, Vol. 4 Fluid-structure interaction, Paper PVP2013-97692.
- i109. SALZE, E., BAILLY, C., MARSDEN, O., JONDEAU, E. & JUVÉ, D., 2014, An experimental characterisation of wall pressure wavevector-frequency spectra in the presence of pressure gradients, *20th AIAA/CEAS Aeroacoustics Conference*, 16-20 June 2014, Atlanta, GA, USA, AIAA Paper 2014-2909, 1-26.
- i110. BRICHET, G., KOENIG, M. & BAILLY, C., 2015, Installation noise of a turbofan jet engine under an airfoil, *21th AIAA/CEAS Aeroacoustics Conference*, 22-26 June, Dallas, TX, USA.
- i111. SALZE, E., BAILLY, C., MARSDEN, O., JONDEAU, E. & JUVÉ, D., 2015, An experimental investigation of wall pressure fluctuations beneath pressure gradients, *21th AIAA/CEAS Aeroacoustics Conference*, 22-26 June, Dallas, TX, USA.
- i112. SALZE, E., BAILLY, C., MARSDEN, O. & JUVÉ, D., 2015, Investigation of the wall pressure wavenumber-frequency spectrum beneath a turbulent boundary layer with pressure gradient, *Ninth International Symposium on Turbulence and Shear Flow Phenomena (TSFP-9)*, Melbourne, Australia, July 1-3, 1-6.
- i113. SALZE, E., BAILLY, C., MARSDEN, O., JONDEAU, E. & JUVÉ, D., 2015, Experimental investigation of the influence of a mean pressure gradient on turbulent wall pressure fluctuations, *22nd International Congress on Sound and Vibration (ICSV22)*, Florence, Italy, 12-16 July.
- i114. SABATINI, R., MARSDEN, O., BAILLY, C. & BOGEY, C., 2016, Assessment of numerical accuracy for the direct computation of sound propagation (invited paper), *171st Meeting of the Acoustical Society of America, J. Acoust. Soc. Am.*, **139**(4) Pt.2, 1984-1985.
- i115. BIOLCHINI, R., BAILLY, C., BOUSSUGE J.-F. & FERNANDO, R., 2016, Influence of temperature on noise and aerodynamic development in a high subsonic jet by Large Eddy Simulation, *22nd AIAA/CEAS Aeroacoustics Conference*, 30 May - 1 June, Lyon, France.
- i116. CASTELAIN, T., MERCIER, B., GOJON, R., BOGEY, C. & BAILLY, C., 2016, Estimation of convection speed in underexpanded jets from schlieren pictures : effects of space integration, *22nd AIAA/CEAS Aeroacoustics Conference*, 30 May - 1 June, Lyon, France.
- i117. MERCIER, B., CASTELAIN, T. & BAILLY, C., 2016, A schlieren based experimental investigation of screech noise sources, *22nd AIAA/CEAS Aeroacoustics Conference*, 30 May - 1 June, Lyon, France.
- i118. TROIAN, R., DRAGNA, D., BAILLY, C. & GALLAND, M.A., 2016, Broadband eduction of liner impedance under multimodal acoustic propagation, *22nd AIAA/CEAS Aeroacoustics Conference*, 30 May - 1 June, Lyon, France.

- i119. YSER P., BAILLY, C., DAGRAU F., CHALOT, F. & BARRÉ S., 2016, High-order Variational Multiscale model with an explicite filtering in a stabilised finite element method for LES/DES computations, *22nd AIAA/CEAS Aeroacoustics Conference*, 30 May - 1 June, Lyon, France.
- i120. MERCIER, B., JONDEAU, E., CASTELAIN, T. & BAILLY, C., 2017, Density fluctuation measurement using Rayleigh scattering, *52nd 3AF International Conference on Applied Aerodynamics*, FP54-AERO2017, 27-29 March 2017, Lyon, France.

Proceedings of peer-reviewed Conferences in french

- j1. BAILLY, C., LAFON, P. & CANDEL, S., 1994, Modélisation du rayonnement acoustique des ondes de Mach. Application aux jets libres supersoniques avec prise en compte de la température, *Ambiance acoustique et vibratoire des systèmes de transport spatial*, colloque international CNES - ONERA, 8-15 février, Jouy-en-Josas, 1-7.
- j2. BAILLY, C., LAFON, P. & CANDEL, S., 1994, Une approche stochastique pour la modélisation du bruit des écoulements turbulents, *3ème Congrès Français d'Acoustique*, 2-6 Mai, Toulouse, colloque C5, supplément au Journal de Physique III, 4, 935-938.
- j3. BAILLY, C., LAFON, P. & CANDEL, S., 1997, Prévission du bruit des jets supersoniques, *4ème Congrès Français d'Acoustique*, 14-18 avril, Marseille, supplément au Journal de Physique II, 919-923.
- j4. BOGEY, C. & BAILLY, C., 1999, Modélisations et simulations numériques en aéroacoustique, *14ème Congrès Français de Mécanique*, 30 août - 3 sept., Toulouse, n° 194, 1-6.
- j5. BAILLY, C., 2000, Propagation acoustique dans une tuyère transonique, *5ème Congrès Français d'Acoustique*, 3-6 septembre, Lausanne, 538-541.
- j6. BOGEY, C., BAILLY, C. & JUVÉ, D., 2000, Calcul du rayonnement acoustique des écoulements libres par Simulation des Grandes Echelles, *5ème Congrès Français d'Acoustique*, 3-6 septembre, Lausanne, 574-577.
- j7. GLOERFELT, X., BAILLY, C. & JUVÉ, D., 2000, Simulation numérique directe du bruit rayonné par une cavité excitée par un écoulement, *5ème Congrès Français d'Acoustique*, 3-6 septembre, Lausanne, 554-557.
- j8. BOGEY, C. & BAILLY, C., 2001, Calcul du bruit produit par un jet circulaire à Mach 0.9 par simulation des grandes échelles, *15ème Congrès Français de Mécanique*, 3 - 7 sept., Nancy, No. 355, 1-6.
- j9. GLOERFELT, X., BAILLY, C. & JUVÉ, D., 2001, Simulations numériques du bruit rayonné par une cavité excitée par un écoulement subsonique, *15ème Congrès Français de Mécanique*, 3 - 7 sept., Nancy, No. 360, 1-6.
- j10. GLOERFELT, X., BAILLY, C. & JUVÉ, D., 2002, Simulation des grandes échelles du champ acoustique produit par un écoulement affleurant une cavité, *6ème Congrès Français d'Acoustique*, 8-11 avril, Lille, No. 237, 133-136.
- j11. HÉRON, N., RAVACHOL, M., CANDEL, S. & BAILLY, C., 2002, Modélisation statistique du bruit de jet pour des applications aéronautiques, *38ème colloque d'aérodynamique appliquée*, AAAF, Arcachon, 7-8 oct., 1-9.
- j12. BOGEY, C. & BAILLY, C., 2003, Calcul du bruit d'un jet subsonique à nombre de Reynolds élevé par Simulation des Grandes Echelles, *16ème Congrès Français de Mécanique*, 1-5 sept., Nice, No. 156, 1-6.
- j13. GLOERFELT, X., BOGEY, C. & BAILLY, C., 2003, Influence de la largeur transversale d'une cavité sur le bruit rayonné par un écoulement affleurant, *16ème Congrès Français de Mécanique*, 1-5 sept., Nice, No. 769, 1-6.
- j14. LAMAISON, G., BERTOGLIO, J.-P. & BAILLY, C., 2003, Prédiction du bruit à l'aide d'un modèle spectral de turbulence. Application au cas d'un jet plan, *16ème Congrès Français de Mécanique*, 1-5 sept., Nice, No., 1-6.
- j15. GLOERFELT, X., MARSDEN, O. & BAILLY, C., 2004, Utilisation de la simulation numérique pour l'étude de la réduction du rayonnement sonore produit par un écoulement affleurant une cavité, *39ème Colloque d'Aérodynamique Appliquée : contrôle des écoulements*, 22-24 mars, Paris, 1-2.
- j16. BARRÉ, S., BOGEY, C. & BAILLY, C., 2005, Étude du rayonnement acoustique de tourbillons elliptiques par simulation numérique directe, *17ème Congrès Français de Mécanique*, 29 août - 2 sept., Troyes, No. 166, 1-6.

- j17. BERLAND, J., BOGEY, C. & BAILLY, C., 2005, Étude du screech d'un jet plan supersonique par simulation des grandes échelles compressible, *17^{ème} Congrès Français de Mécanique*, 29 août - 2 sept., Troyes, No. 675, 1-6.
- j18. EMMERT, T. & BAILLY, C., 2005, Calcul du rayonnement acoustique d'ondes d'instabilité utilisant une PML, *17^{ème} Congrès Français de Mécanique*, 29 août - 2 sept., Troyes, No. 789, 1-6.
- j19. FLEURY, V., BAILLY, C. & JUVÉ, D., 2005, Rayonnement acoustique sous-harmonique de la couche de cisaillement d'un jet excité, *17^{ème} Congrès Français de Mécanique*, 29 août - 2 sept., Troyes, No. 754, 1-6.
- j20. LAMAISON, G., BERTOGLIO, J.-P. & BAILLY, C., 2005, Prédiction du bruit à l'aide d'un modèle spectral de turbulence et d'un champ source synthétique, *17^{ème} Congrès Français de Mécanique*, 29 août - 2 sept., Troyes, No. 1011, 1-6.
- j21. MARSDEN, O., BOGEY, C. & BAILLY, C., 2005, Calcul direct du bruit aérodynamique rayonné par des géométries complexes, *17^{ème} Congrès Français de Mécanique*, 29 août - 2 sept., Troyes, No. 929, 1-6.
- j22. DEYKINA, E., BAILLY, C., BOGEY, C. & JUVÉ, D., 2007, Simulation numérique de la propagation de signaux acoustiques basses fréquences dans l'atmosphère *18^{ème} Congrès Français de Mécanique*, 27 au 31 août, Grenoble.
- j23. EMMERT, T., LAFON, P. & BAILLY, C., 2007, Simulation aéroacoustique d'un écoulement transsonique dans un élargissement brusque, *18^{ème} Congrès Français de Mécanique*, 27 au 31 août, Grenoble.
- j24. EMMERT, T., LAFON, P., CROUZET, F. & BAILLY, C., 2007, Simulation multi-domaines et calcul parallèle pour l'aéroacoustique en écoulement confiné, *18^{ème} Congrès Français de Mécanique*, 27 au 31 août, Grenoble.
- j25. PIELLARD, M., CLESSE, H. & BAILLY, C., 2007, Vers une méthode hybride de calcul aéroacoustique appliqué à des écoulements internes : diaphragme en conduit à faible nombre de Mach, *18^{ème} Congrès Français de Mécanique*, 27 au 31 août, Grenoble.
- j26. BODARD, G. & BAILLY, C., 2009, Couplage de méthodes hybrides acoustiques pour la prévision du bruit de jet par simulation des grandes échelles, *19^{ème} Congrès Français de Mécanique, LESTAC 09 - Large Eddy Simulation in Turbulence, Aeroacoustic and Combustion*, 24-28 août, Marseille.
- j27. BOGEY, C. & BAILLY, C., 2009, Large-eddy simulations of round jets : effects of initial conditions on self-similarity region, *19^{ème} Congrès Français de Mécanique, LESTAC 09 - Large Eddy Simulation in Turbulence, Aeroacoustic and Combustion*, 24-28 août, Marseille.
- j28. DAUDE, F., BERLAND, J., LAFON, P., CROUZET, F. & BAILLY, C., 2009, Applications of a high-order algorithm for LES and CAA in complex geometries, *19^{ème} Congrès Français de Mécanique, LESTAC 09 - Large Eddy Simulation in Turbulence, Aeroacoustic and Combustion*, 24-28 août, Marseille.
- j29. DE CACQUERAY, N., BOGEY, C. & BAILLY, C., 2009, Développement d'une méthode de filtrage adaptatif et conservatif pour la capture de choc, *19^{ème} Congrès Français de Mécanique, LESTAC 09 - Large Eddy Simulation in Turbulence, Aeroacoustic and Combustion*, 24-28 août, Marseille.
- j30. DESVIGNE, D., MARSDEN, O., BOGEY, C. & BAILLY, C., 2009, Développement de schémas d'interpolation décentrés stables pour le calcul multidomaine en aéroacoustique, *19^{ème} Congrès Français de Mécanique, LESTAC 09 - Large Eddy Simulation in Turbulence, Aeroacoustic and Combustion*, 24-28 août, Marseille.
- j31. ANDRÉ, B., CASTELAIN, T., BAILLY, C. & JUVÉ, D., 2010, Experimental investigation of screech by an underexpanded supersonic jet with forward flight effect, *10^{ème} Congrès Français d'Acoustique*, 12-16 avril, Lyon, 1-6.
- j32. BERLAND, J., DAUDE, F., LAFON, P., CROUZET, F. & BAILLY, C., 2010, Simulations aéroacoustiques en géométries complexes : schémas d'ordre élevé et maillages composites, *10^{ème} Congrès Français d'Acoustique*, 12-16 avril, Lyon, 1-5.
- j33. DE CACQUERAY, N., BOGEY, C. & BAILLY, C., 2010, Direct computation of the noise radiated by a propulsive jet at Mach number of 3.3, *10^{ème} Congrès Français d'Acoustique*, 12-16 avril, Lyon, 1-6.
- j34. DESVIGNE, D., MARSDEN, O., BOGEY, C. & BAILLY, C., 2010, Calcul direct du bruit rayonné par un écoulement laminaire à Mach 0.2 affleurant une cavité cylindrique, *10^{ème} Congrès Français d'Acoustique*, 12-16 avril, Lyon, 1-6.

- j35. SERRE, G., LAFON, P., GLOERFELT, X. & BAILLY, C., 2010, Méthodes de réduction numérique pour l'analyse de modèles aéroacoustiques linéarisés, *10^{ème} Congrès Français d'Acoustique*, 12-16 avril, Lyon, 1-6.
- j36. HANIQUE-COCKENPOT, G., MARSDEN, O., BAILLY, C. & BOGEY, C., 2011, Etude numérique de la propagation des infrasons en haute atmosphère, *20^{ème} Congrès Français de Mécanique*, 29 août-2 sept., Besançon.
- j37. KREMER, F., BOGEY, C. & BAILLY, C., 2011, Etude de schémas temporels semi - implicites pour la simulation des écoulements de paroi, *20^{ème} Congrès Français de Mécanique*, 29 août-2 sept., Besançon.

Other conference proceedings

- k1. BAILLY, C., LAFON, P. & CANDEL, S., 1993, Modélisation du rayonnement acoustique des ondes de Mach dans les jets supersoniques parfaitement détendus, *13^{ème} colloque d'aéro- et d'hydro-acoustique de la SFA*, 9-13 juin, Ecole Centrale de Lyon, 1-5.
- k2. BAILLY, C., LAFON, P. & CANDEL, S., 1994, Méthodes d'estimation du bruit rayonné par les écoulements turbulents, journée acoustique - écoulements, 13 décembre, université du Havre, 1-2.
- k3. BAILLY, C., CANDEL, S. & LAFON, P., 1995, Acoustic radiation of high speed hot jets, *Écoulements propulsifs dans les systèmes de transport spatial*, colloque CNES-ONERA, 11-15 septembre, Bordeaux, 1-12.
- k4. BAILLY, C. & COMTE BELLOT, G., 1997, Contrôle des systèmes chaotiques : quelques exemples de simulation, *Algorithmes de contrôle*, GDR de Mécanique des fluides active, Ecole Centrale de Lyon, 5 juin, 1-5.
- k5. JUVÉ, D., BOGEY, C. & BAILLY, C., 1999, Numerical simulations of aerodynamic noise using linearized Euler equations, *Aerokustischer Workshop SWING*, 28-29 october, Dresden, Germany, 1-14.
- k6. BAILLY, C. & POLLET, M., 1999, Linear contribution of instability waves to supersonic jet noise, *Premier colloque européen sur la technologie des lanceurs*, CNES, 14-16 décembre, Toulouse, 179-188. Voir aussi, BOGEY, C. & BAILLY, C., Direct computation of aerodynamic noise using Large Eddy Simulation, 157.
- k7. BOGEY, C., BAILLY, C., JUVÉ, D., BÉRA, J.-C., & SUNYACH, M., 2002, Simulation numérique du bruit des jets. Amélioration du mélange par techniques actives en vue de la réduction du bruit des jets, *1er colloque national sur le Transport Supersonique*, 6-7 février, Paris, 199-208.
- k8. BOGEY, C. & BAILLY, C., 2002, Optimized explicit schemes for the direct computation of aerodynamic noise, *IMA Conference on Computational Aeroacoustics*, Institute of Mathematics and its Applications, 9-11 april, University of Greenwich, U.K.
- k9. BAILLY, C. & BOGEY, C., 2002, Calcul direct du rayonnement acoustique de jets rapides, *séminaire Turbulence & Lanceurs spatiaux*, organisé par l'AFM et le CNES, 13-14 juin, Paris.
- k10. BAILLY, C. & BOGEY, C., 2002, Contribution de l'aéroacoustique numérique au calcul du bruit de jet, **conférence invitée**, Journée spécialisée *Réduction des bruits des avions commerciaux au voisinage des aéroports civils*, INRETS Bron, 12 décembre.
- k11. BOGEY, C. & BAILLY, C., 2003, Explicit finite-difference schemes with spectral-like properties for Large Eddy simulation, *Euromech Colloquium 446 on High-order methods for the numerical simulation of vortical and turbulent flows*, 10-11 March, Seeheim, Germany, 1-2.
- k12. BAILLY, C. & BOGEY, C., 2003, Direct noise calculation applied to subsonic circular jets, n° 67, *5th EURO-MECH Fluid Mechanics Conference*, 24-28 August 2003, Toulouse, 459.
- k13. BOGEY, C. & BAILLY, C., 2006, Influence of the Reynolds number on the development of transitional jets computed by Large Eddy Simulation, *Whither Turbulence Prediction and Control*, March 26-29, Seoul National University, Seoul, Korea, WTPC-003.
- k14. MARSDEN, O., BOGEY, C. & BAILLY, C., 2006, Turbulent boundary layer development around a NACA 0012 airfoil, *Whither Turbulence Prediction and Control*, March 26-29, Seoul National University, Seoul, Korea, WTPC-007.
- k15. BERLAND, J., BOGEY, C. & BAILLY, C., 2006, Computation of a shock containing planar jet and its screech tone using large-eddy simulation, *Conference on Turbulence and Interactions*, 29 may - 2 june Porquerolles, 1-3.

- k16. BERLAND, J., BOGEY, C. & BAILLY, C., 2006, Explicit low dispersive and low dissipative non-centered finite differences and filters, *Fourth International Conference on Computational Fluid Dynamics (ICCFD4)*, 10-14 july, Ghent, Belgium, 175-176.
- k17. BERLAND, J., BOGEY, C. & BAILLY, C., 2006, Investigation of shock-induced noise in a supersonic jet using large-eddy simulation, *10th CEAS/ASC Workshop, Jet noise prediction methodologies : recent developments*, 28-29 september, Dublin, Ireland.
- k18. BOGEY, C., BERLAND, J. & BAILLY, C., 2007, Finite-differences schemes optimized in Fourier space for aeroacoustics, *7th International Conference on Spectral and High Order Methods*, Beijing, June 18-22.
- k19. RICOT, D., MARIÉ, S., SAGAUT, P. & BAILLY, C., 2007, Lattice Boltzmann method with selective viscosity filter, *Fourth International Conference for Mesoscopic Methods in Engineering and Science (ICMMES-07)*, July 16-20, Munich, Germany.

Spreading knowledge - magazine paper

- 11. JUVÉ, D. & BAILLY, C., 2001, L'aéroacoustique, dans *Pour la Science, Le Monde des Sons*, dossier hors-série 32, 84-87.
- 12. BAILLY, C., 2007, cycle Effervesciences, conférence à l'occasion des 150 ans de l'ECL.
- 13. BAILLY, C., 2009, « L'acoustique au quotidien! », *Technica*, 575, 2-14.
- 14. BAILLY, C., 2013, « Un avion, cela fait encore du bruit! », *Pistons du Savoir*, Ecole Centrale de Lyon, 18 novembre.
<https://www.youtube.com/watch?v=SfelyvgKJ0I&list=PL2FF4441A2A4785A1&index=10>
- 15. BAILLY, C., 2014, « Ordre et chaos ... de Newton à Lorenz », Collège des Hautes Etudes Lyon Science[s] (CHELs), 23 octobre, Sciences Po. Lyon.
MOOC (mars 2015) & seconde séance en présentiel le 15 octobre 2015.

PhD Dissertations

- m1. BAILLY, C., 1994, Thèse de doctorat, *Modélisation du rayonnement acoustique des écoulements turbulents libres subsoniques et supersoniques*, Ecole Centrale Paris 1994-19. Soutenue le 31 mars 1994 à l'ECP, mention très honorable avec félicitations du jury.
- m2. BAILLY, C., 1999, Habilitation à diriger des recherches (qualified to supervise Ph.D. Thesis), *Simulations numériques en aéroacoustique*, soutenue le 29 mars 1999 à l'ECL.