

PUBLICATION LIST

Alain DERVIEUX

January 2022

1 In Journals:

1,2,3,7,13,14,15,21,35,42,
56,68,72,73,75,76,86,87,93,102,
103,105,106,107,109,110,116,117,118,119,
120,127,132,134,137,140,142,150,152,153,
154,156,157,158,169,172,173,174,175,178,
180,181,183,184,199,202,206,211,215,216,
218,219,220,223,224,229,230,232,239,240
249,253,256,257,263,264

Recent INRIA reports (number ????) can be found in :

<http://www-sop.inria.fr/rapports/sophia/RR-????.html>

Other recent papers can be found by looking in:

<http://www-sop.inria.fr/tropics/tropics/documents.html>

For other papers do not hesitate to contact me (alain.dervieux.at.inria.fr)

[1] B. Palmerio, A. Dervieux, *Comptes Rendus Acad. Sci. Paris, Série A*, Vol.275, 1111-1113 (1972)

[2] B. Palmerio, A. Dervieux, Une formule de Hadamard dans des problèmes d'identification de domaines, *Comptes Rendus Acad. Sci. Paris, Série A*, Vol.280, 1697-1700 (1975)

[3] B. Palmerio, A. Dervieux, Une formule de Hadamard dans des problèmes d'identification de domaines, exemples, *Comptes Rendus Acad. Sci. Paris, Série A*, Vol.280, 1761-1764 (1975)

[4] B. Palmerio, A. Dervieux, Une formule de Hadamard dans des problèmes d'Optimal design, *Lectures Notes in Computer Sciences*, Vol.41, (1976)

[5] J.F. Bourgat, A. Dervieux, Méthode d'homogénéisation des opérateurs à coefficients périodiques: étude des correcteurs provenant du développement asymptotique, *LABORIA RR 278* (1978)

[6] J.F. Bourgat, A. Dervieux, Homogenization and stiffness methods for

operators with periodic coefficients of large amplitude, Congrès IFAC-IRIA, IRIA-INF-LAB 7815 (1978)

[7] B. Palmerio, A. Dervieux, Hadamard's variational formula for a mixed problem and an application to a problem related to a Signorini-like variational inequality, LABORIA RR 339 et *Num. Funct. Anal. and Optimization*, Vol.1(a), 113-144 (1979)

[8] F. Thomasset, A. Dervieux, A finite element method for the simulation of a Rayleigh-Taylor instability, Lectures Notes in Mathematics, Vol.771, 145-158 (1979)

[9] A. Dervieux, Perturbation des équations d'équilibre d'un plasma confiné: comportement de la frontière libre, étude des branches de solutions, INRIA RR 18 (1980)

[10] A. Dervieux, F. Thomasset, Multifluid incompressible flows by a finite element method, Lectures Notes in Physics, Vol.141, 158-163 (1981)

[11] A. Dervieux, F. Thomasset, Sur l'approximation d'écoulements multifluides incompressibles visqueux par des éléments finis triangulaires de degré un, INRIA RR 67 (1981)

[12] A. Dervieux, Approximation d'écoulements multifluides instationnaires, Notes d'un cours au Séminaire INRIA sur la Simulation Numérique en Mécanique des Fluides par la méthode des Eléments Finis, Nice (France) 19-23 janvier 1981, INRIA RR 68 (1981)

[13] A. Dervieux, H. Kawarada, Free boundary problems for the Laplace equation: a priori estimates, existence theorems, asymptotic behaviours, INRIA RR 364 et *Math. Meth. in the Appl. Sci.*, Vol.3, 38-69 (1981)

[14] A. Dervieux, A perturbation study of the Obstacle problem by means of a generalized implicit function theorem, INRIA RR 16 et *Ann. di Math. Pura ed Applicata (IV)*, Vol.CXXVII, 321-364 (1981)

[15] A. Dervieux, A perturbation of a jet-like annular free boundary problem and an application to an optimal control problem, INRIA RR 21 et *Comm. in Partial Diff. Equations*, Vol.6(2), 197-247 (1981)

[16] A. Dervieux, C. Saguez, Perturbation du domaine d'intégration pour une inéquation variationnelle elliptique, INRIA RR 57 (1981)

[17] F. Angrand, A. Dervieux, V. Boulard, J. Périaux, G. Vijayasundaram, Transonic Euler simulations by means of Finite Element explicit schemes, Sixth AIAA Conference on Computational Fluids Dynamics (Danvers, Mass, USA), July 13-15 (1983), AIAA Paper 83-1924.

[18] F. Angrand, A. Dervieux, L. Loth, G. Vijayasundaram, Simulation of Euler transonic flows by means of explicit Finite Element-type schemes, INRIA RR 250 (Oct. 1983)

[19] A. Dervieux, G. Vijayasundaram, On numerical schemes for solving Euler equations of Fluid Dynamics, compte rendu de l'atelier INRIA intitulé "Numerical Methods for Compressible Inviscid Fluids", 7-9 dec.1983 Rocquencourt(France), Numerical Methods for the Euler Equations of Fluid Dynamics, pp. 121-144, F. Angrand, A. Dervieux, J.A. Désidéri, R. Glowinski. Eds., SIAM (1985)

- [19bis] F. Angrand, A. Dervieux, J.A. Désidéri, R. Glowinski. Eds., *Numerical Methods for the Euler Equations of Fluid Dynamics*, SIAM (1985)
- [20] F. Angrand, A. Dervieux, V. Boulard, J. Périaux, G. Vijayasundaram, Triangular Finite Element Methods for the Euler equations, Sixième Colloque International sur les méthodes de calcul scientifique et technique, Versailles (F) Dec. 12-16 1983, Computer methods in Applied Sciences and Engineering, VI, pp 535-563, R.Glowinski and J.-L.Lions Eds., North-Holland (1984)
- [21] F. Angrand, A. Dervieux, Some explicit triangular finite element schemes for the Euler equations, *Int. J. for Numer. Methods in Fluids*, Vol.4, 749-764 (1984)
- [22] F. Angrand, V. Billey, A. Dervieux, J.A. Desideri, J. Périaux, B. Stoufflet, On the use of rational Runge-Kutta methods in Euler steady-state computations, Lecture Notes in Physics, Vol.218, pp. 77-81, Springer (1985)
- [23] F. Angrand, V. Billey, A. Dervieux, J. Périaux, B. Stoufflet, 2-D and 3-D Euler flow calculations with a second-order Galerkin Finite Element method, AIAA Paper 85-1706 (1985)
- [24] A. Dervieux, Steady Euler simulations using unstructured meshes, Von Karman Institute for Fluid Dynamics, Lecture series 1985-04, Computational Fluid Dynamics (1985). Revised version published in *Partial Differential Equations of hyperbolic type and Applications*, Geymonat Ed., World Scientific (1987)
- [25] A. Dervieux, J.A. Desideri, F. Fezoui, B. Palmerio, J.P. Rosenblum, B. Stoufflet, Euler calculations by upwind Finite Element Methods and adaptive mesh algorithm, GAMM Workshop on the Numerical Simulation of Compressible Euler Flows, Rocquencourt (F), June 10-13 1986, Notes in Numerical Fluid Dynamics, 26, Vieweg, Braunschweig-Wiesbaden
- [26] B. Palmerio, V. Billey, A. Dervieux, J.Périaux, Self-adaptive refinements and F.E.M. for solving the Euler equations, Int. Conf. on Num. Meth. for Fluid Dyn. April 1-4 1985, Reading(UK), Numerical Methods for Fluid Dynamics, II, K.W.Morton, M.J.Baines Eds., Clarendon, Oxford (1986)
- [27] F. Fezoui, B. Stoufflet, J. Périaux, A. Dervieux, Implicit high-order Finite-Element schemes for the Euler equations, 4th Int. Symposium on Numerical Methods in Engineering, Atlanta (GA,USA), March 24-28 1986, Computational Mechanics Pub., Southampton (UK)
- [28] B. Palmerio, A Dervieux, Application of a F.E.M. moving node Adaptive Method to accurate shock capturing, First Int. Conf. on "Numerical Grid Generation in Computational Fluid Dynamics", Landshut (FRA) (1986), J. Hauser and C. Taylor Eds., Pineridge (1986)
- [29] E. Perez, J. Périaux, J.P. Rosenblum, B. Stoufflet, A. Dervieux, M.H. Lallemand, Adaptive Full-Multigrid Finite Element Methods for solving the two-dimensional Euler equations, 10th Int. Conf. on Numer. Methods in Fluid Dynamics, Pékin (Chine), 1986, Lecture Notes in Physics, Springer (1987)
- [30] B. Stoufflet, J. Périaux, F. Fezoui, A. Dervieux, 3-D Hypersonic Euler Numerical Simulation around Space Vehicles using Adapted Finite Elements, 25th AIAA Aerospace Meeting, Reno (1987), AIAA Paper 86-0560

- [31] A. Dervieux, B. Larrouturou, A. Habbal, H. Guillard, Numerical simulation of 2-D compressible reacting flows by means of an explicit Finite-Element scheme, INRIA RR 690 (1987)
- [32] A. Dervieux, B. Larrouturou, A. Habbal, H. Guillard, F. Benkhaldoun, Finite-Element Investigation of Two-Dimensional Compressible Reacting Flows, SIAM Conf. on Numerical Combustion, San Francisco, March 9-11, 1987
- [33] F. Benkhaldoun, A. Dervieux, G. Fernandez, H. Guillard, B. Larrouturou, Some finite-element investigations of stiff combustion problems: mesh adaption and implicit time-stepping, *Mathematical modelling in combustion and related topics*, Brauner, Schmidt-Lainé eds., pp. 393-409, NATO ASI Series E, Nijhoff, Dordrecht, (1988).
- [34] M.H. Lallemand, A. Dervieux, A multi-grid Finite-Element method for solving the two-dimensional Euler equations, Third Copper Mountain Conference on Multigrid Methods, 6-10 avril 1987, *Multigrid Methods*, M.Dekker(1988)
- [35] V. Billey, A. Dervieux, L. Fezoui, J. Périaux, V. Selmin, B. Stoufflet, Recent improvements in Galerkin and upwind Euler solvers and application to 3-D transonic flow in aircraft design, Huitième Colloque International sur les méthodes de calcul scientifique et technique, Versailles 14-18 dec. 1987, and *Computer Methods in Applied Mechanics and Engineering*, Volume 75, Issues 1-3, October 1989, Pages 409-414
- [36] M.H. Lallemand, A. Dervieux, Calculs d'écoulements compressibles par une méthode multigrille en maillages non-structurés, Huitième Congrès Français de Mécanique, Nantes (1987)
- [37] A. Dervieux, F. Fezoui, J. Périaux, B. Stoufflet, Application of Finite Element to 3-D Hypersonic Euler Numerical Simulation around Space Vehicles, Joint IMA-SMAI Conference on Computational Methods in Aeronautical Fluid Dynamics, April 6-8 1987, Reading (UK)
- [38] F. Fezoui, M.-H. Lallemand, H. Steve, A. Dervieux, New developments in fast Euler Finite-Element solvers, Septième Colloque GAMM, Louvain (1987), *Notes in Numerical Fluid Dynamics*, Vieweg (1988)
- [39] A. Dervieux, J. Périaux, A. Rizzi, B. van Leer, Report on the GAMM Workshop on the Numerical simulation of compressible Euler flows, Septième Colloque GAMM, Louvain (1987), *Notes in Numerical Fluid Dynamics*, Vieweg(1988)
- [40] A. Dervieux, J. Périaux, A. Rizzi, B. van Leer, Eds, Numerical Simulation of Compressible Euler Flows, *Notes in Numerical Fluid Mechanics*, 26, Vieweg (1989)
- [41] A. Dervieux, J.A. Desideri, F. Fezoui, H. Steve, B. Palmerio, J. Périaux, J.P. Rosenblum, B. Stoufflet, Euler calculations by upwind Finite Element Methods and adaptive mesh algorithm,II, *Mecanica Computacional*, Asociación Argentina de Mecánica Computacional (1988)
- [42] A. Dervieux, B. Larrouturou, R. Peyret, On some adaptive numerical approaches of thin flame propagation models, Symposium on Physical aspects of numerical gas dynamics, *Computers and Fluids*,17, (1), pp. 39-60, (1989).
- [43] P. Arminjon, A. Dervieux, L. Fezoui, H. Steve, B. Stoufflet, Non-oscillatory schemes for multidimensional Euler calculations with unstructured grids, *Nonlinear hyperbolic equations - Theory, numerical methods and applica-*

tions, Ballmann & Jeltsch eds., pp. 1-10, Notes on Numerical Fluid Mechanics, 24, Vieweg, Braunschweig, (1989).

[44] P. Arminjon, A. Dervieux, Construction of a TVD-like artificial viscosity on two-dimensional arbitrary F.E.M. grids, Rapport INRIA (1989).

[45] F. Benkhaldoun, A. Dervieux, B. Larrouturou, Adaptive finite-element investigations of two-dimensional compressible reactive flows, Numerical and applied mathematics, IMACS transactions on scientific computing, Ames Brezinski eds., Scientific Publishing Co., (1989).

[46] D. Chargy, A. Dervieux, B. Larrouturou, Upwind adaptive finite-element investigations of the two-dimensional reactive interaction of supersonic jets, Seventh international conference on finite elements in flow problems, Huntsville, Alabama, 1989, T. Chung Ed., Hemisphere Pub. (1992).

[47] A. Dervieux, J.-A. Desideri, L. Fezoui, N. Glinsky, E. Hettena, Rome HERMES Workshop on Euler and Navier-Stokes Equations, Rome, May 16-17, 1988, Contribution of INRIA-Sophia Antipolis.

[48] A. Dervieux, L. Fezoui, H. Steve, J. Périaux, B. Stoufflet, Low storage implicit upwind-FEM schemes for the Euler equations, IC11NMF, Williamsburgh(USA), 1988, Lecture Notes in Physics, Springer verlag (1988)

[49] A. Dervieux, M.-H. Lallemand, H. Steve, Multi-grid explicit/Jacobi iterations for solving Euler flows, Seventh international conference on finite elements in flow problems, Huntsville, Alabama, 1989, T. Chung Ed., Hemisphere Pub. (1992).

[50] A. Dervieux, B. Larrouturou, B. Palmerio, Recent developments in thin layer capture by mesh adaption, Seventh international conference on finite elements in flow problems, Huntsville, Alabama, 1989, T. Chung Ed., Hemisphere Pub. (1992).

[51] A. Dervieux, J. Périaux, Aérodynamique et conception d'avions, Bulletin de liaison de la Recherche en Informatique et en Automatique, 121(1989), 29-33

[52] J.-A. Desideri, A. Dervieux, Compressible flow using unstructured grids, Von Karman Institute, Lecture series 1988-05, Computational Fluid Dynamics (1988), réédité en 1992 sous la forme de rapport INRIA no 1732

[53] B. Larrouturou, H. Guillard, A. Dervieux, Sophia-Antipolis Pilot Center, Première plaquette du Centre Pilote ERCOFTAC France-Sud(1988)

[54] B. Palmerio, A. Dervieux, 2-D and 3-D unstructured mesh adaption relying on physical analogy, Actes de Second Int. Conf. on Numerical Grid Generation in Computational Fluid Dynamics, Miami(USA), dec. 1988.

[55] H. Steve, A. Dervieux, A 3-D Multigrid Finite Element method for the Euler equations, Rapport de Recherche INRIA 905 (oct.1988)

[56] D. Chargy, A. Dervieux, B. Larrouturou, Upwind adaptive finite-element investigations of the two-dimensional reactive interaction of supersonic jets, *Int. J. Num. Meth. Fluids*, 11, 751 (1990)

[57] A. Dervieux, J.-A. Desideri, L. Fezoui, M. Mallet, J. Périaux, B. Stoufflet, Finite-element simulations of three-dimensional hypersonic reacting flows around HERMES, Second Joint Europe-US Short Course on Hypersonics, Colorado Springs, Janvier 1989.

- [58] A. Dervieux, J.A. Desideri, Impact des programmes spatiaux hypersoniques sur le développement de la mécanique des fluides numérique, Entretiens Science et Défense, La Villette, 23-24 mai 1989.
- [59] A. Dervieux, L. Fezoui, A. Goudjo, Multi-level algorithms for solving the Euler equations, Fourth Copper Mountain Multigrid Conference, avril 1989, paru dans SIAM Frontier (1989)
- [60] A. Dervieux, M-H. Lallemand, H. Steve, Multi-grid explicit/Jacobi iterations for solving Euler flows, Seventh international conference on finite elements in flow problems, Huntsville, Alabama, 1989, T. Chung Ed., Hemisphere Pub. (1992).
- [61] A. Dervieux, M-H. Lallemand, H. Steve, Unstructured multigridding by volume agglomeration: current status, Rapport INRIA, 1991
- [62] L. Fezoui, A. Dervieux, Approximations non-oscillatoires pour les problèmes hypersoniques; application aux équations d'Euler, Ecole de Printemps de Mécanique des Fluides Numérique, Aussois, mai 1989.
- [63] L. Fezoui, A. Dervieux, Finite-element non oscillatory schemes for compressible flows, Symposium on Computational Mathematics and Applications, Pavie, Pubblicazioni 730, octobre 1989.
- [64] L. Fezoui, J. Regere, F. Tyberghien, A. Dervieux, Upwind finite-element delta wing calculations, poster au Colloque GAMNI-SMAI-IMA, Antibes, 1989
- [65] D. Jeandel, M. Buffat, G. Brun, C. Le Ribault, Y. Mao, A. Dervieux, L. Fezoui, B. Larrouturou, C. Olivier, Finite-element method and turbulence modelling for internal flows, Aeronautical computational fluid dynamics, Oxford University Press, Fezoui Hunt Périaux éd., (1990),
- [66] B. Palmerio, C. Olivier, A. Dervieux, On the relation between TVD and mesh adaption and application to Navier-Stokes calculations, 9th GAMM Conference, Delft, septembre 1989, Numerical Methods in Fluid Mechanics, Vieweg (1990)
- [67] A. Dervieux, B. Larrouturou (Eds.), Numerical Combustion, Lectures Notes in Physics, 351 (1989)
- [67a] E. Morano, M H Lallemand, M P Leclercq, H Steve, B Stoufflet, A Dervieux, Local iterative upwind methods for steady compressible flows (1991) In GMD-Studien Nr. 189, Multigrid Methods: Special Topics and Applications II, 1991. Third Conference on Multigrid Methods
- [68] M.-H. Lallemand, H. Steve, A. Dervieux, Unstructured multi-grid by volume agglomeration: current status, *Computer and Fluids*, 21, **3**, 397-433, 1992
- [69] J.A.Desideri, A. Dervieux, M. Mallet, J. Périaux, B. Stoufflet, "Developments in Hypersonic Reactive Flow Computations around Model Space Vehicle Geometries", Proc. of the Workshop on Hypersonic Flows for Reentry Problems, Part I Springer-Verlag (1993)
- [70] E. Morano, A. Dervieux, "Analysis of Multistep Jacobi Method for Solving the Euler Equations", INRIA Sophia, 1991, Research Report 1506
- [71] B. Palmerio, A. Dervieux, "On weak and strong coupling between mesh adaptors and flow solvers", 12th International Conference on Numerical Methods in Fluids Dynamics Proceedings, 1991, Oxford, Springer Verlag, 1992

- [72] F. Beux, A. Dervieux, “Exact–gradient shape optimization for a 2-D Euler flow”, *Finite Elements in Analysis and Design*, 1992, Elsevier Sciences Publishers, Vol. 12, p. 281-302, aussi Rapport INRIA no 1540
- [73] F. Beux, A. Dervieux, “A hierarchical approach for shape optimization”, *Eng. Comput.*, Vol. 11, 1, p. 25-48, 1994, aussi Rapport INRIA no 1868
- [74] A. Dervieux, L. Fezoui, F. Lorient, “On high resolution variants of Lagrange–Galerkin finite–elements schemes”, INRIA research report 1703, 1992
- [75] E. Morano, A. Dervieux, “Steady relaxation methods for unstructured multigrid Euler and Navier-Stokes solutions”, *Comp. Fluid Dyn.*, 1995, Vol. 5, p. 137-167
- [76] P. Arminjon, A. Dervieux, “Construction of TVD-like artificial viscosities on two-dimensional arbitrary FEM grids”, *J. Comp. Phys.*, Vol. 106, No 1, p. 176-198, 1993
- [77] F. Beux, S. Lanteri, A. Dervieux, B. Larrouturou, “Upwind stabilization of Navier-Stokes solvers”, INRIA Research Report 1885, april 1993
- [78] F. Beux, N. Marco, H. Guillard, A. Dervieux, “Multilevel optimisation: application to PDE solution and to shape optimum design”, Proceedings of VII-th International Conference on Finite Elements in Fluids, Barcelone, septembre 1993.
- [79] M.-C. Ciccoli, A. Dervieux, J.-A. Desideri, E. Morano, “Efficient solution methods for compressible flow computations, Proc. of *FEM’50*, The Finite Element Method: Fifty Years of the Courant Element, Jyvaskyla, Finland, August 11- Sept. 4, 1993
- [80] B. Koobus, M.-H. Lallemand, G. Carré, A. Dervieux, “Unstructured multigrid by volume agglomeration for diffusion problems”, Proc. of Contribution to Multigrid: Fourth EMG Conference, CWI, Amsterdam, 1993, CWI Tract.
- [81] B. Palmerio, A. Dervieux, “Advances in mesh adaption for CFD”, Proc. of Fifth International Symposium on refined flow modelling and Turbulence measurements, Paris, sept. 7-10, 1993
- [82] B. Koobus, M.-H. Lallemand, A. Dervieux, “Unstructured volume-agglo-meration MG: solution of the Poisson equation”, *Int. J. for Numerical Methods in Fluids*, Vol. 18, p. 27-42, 19xxxx94
- [83] B. Palmerio, A. Dervieux, “Mesh adaptive interpolation: towards a theory”, Proc. of Fourth International Conference on Numerical Grid Generation in Computational Fluid Dynamics and related topics, Swansea, UK, 6-8 april., 1994, N.-P. Weatherhill, P.-R. Eiseman, J. Hauser, J.-F. Thompson (eds.), Pineridge Press Ltd., 479-488, Swansea, Wales, 1994
- [84] A. Carrau, A. Dervieux, “Application of a mesh adaptive capture strategy for solving 1D turbulent layers”, Proc. of the Fourth International Conference on Numerical Grid Generation in Computational Fluid Dynamics and related topics, Swansea, UK, 6-8 april., 1994, N.-P. Weatherhill, P.-R. Eiseman, J. Hauser, J.-F. Thompson (eds.), Pineridge Press Ltd., 513-526, Swansea, Wales, 1994

- [85] A. Dervieux, J.-M. Malé, N. Marco, J. Périaux, B. Stoufflet, H.-Q. Chen, “Some recent advances in optimal shape design in aeronautical flows”, Proc. of Second european Computational Fluid Dynamics ECCOMAS’94 Conference, S. Wagner, J. Périaux, E.-H.Hirschel (eds.), Invited Lectures and Technological Sessions, John Wiley and sons, 251-258, Stuttgart, Allemagne, 1994
- [86] N. Marco, B. Koobus, A. Dervieux, “An additive multilevel preconditioning method and its application to unstructured meshes”, INRIA research report 2310, 1994 and *Journal of Scientific Computing*, 12, no 3, 233-251, 1997
- [87] A. Bermudez, A. Dervieux, J.-A. Desideri, E. Vasquez, “Upwind schemes for the two-dimensional shallow water equations with variable depth using unstructured meshes”, INRIA Research Report 2739, 1995, et *Computer Methods in Applied Mech. and Engrg.*, 155, 49-27, 1998
- [88] C. Debiez, A. Dervieux, A. Arminjon, “Mixed element-volume: bridging finite-element and positive finite-volumes, some accuracy issues”, Proc. of the international conference on Numerical methods for the Euler and Navier-Stokes equations, P. Arminjon (ed.), John Wiley and Sons, CERCA, Montréal, Québec Canada, 1995
- [89] C. Debiez, A. Dervieux, K. Mer, B. Nkonga, “computations of unsteady flows with mixed finite-volume/finite-element upwind methods”, Proceeding of the Ninth International Conference on finite elements in Fluids, new trends and applications, M.M Cecchi, K. Morgan, J. Périaux, B. Schreffer, O. Zienkiewicz (eds.), 77-86, Venise, Italie, 1995
- [90] A. Dervieux, N. Marco, J.-M. Malé, J. Périaux, B. Stoufflet, H.-Q. Chen, M. Sefrioui, “ Gradient and genetic optimisers for aerodynamic design”, Proc. of the ICIAM’95 conference, Hambourg, Germany, 1995
- [91] A. Dervieux, N. Marco, J.-M. Malé, J. Périaux, B. Stoufflet, H.-Q. Chen, M. Sefrioui, “ Numerical versus non numerical robust optimisers for aerodynamic design using transonic finite-element solvers”, Proc. of the 12th AIAA CFD Conference, paper 94-203, Orleans, Luisiana,(USA), 1995
- [92] B. Palmerio, A. Dervieux, “Soon capturing and frequency analysis for mesh adaptive interpolation”, Inria Research Report 2722, 1995.
- [93] B. Palmerio and A. Dervieux, ”Multimesh and multiresolution analysis for mesh adaptive interpolation”, *Applied Numerical Mathematics*, Vol. 22, 477-493, 1996
- [94] A. Dervieux, “About the basic methods”, in: Handbook of Computational Fluid Dynamics, R. Peyret ed., Academic Press, Ch. 1, 1-23, 1996
- [95] G. Carré, A. Dervieux, J. Francescatto, “On anisotropic MG and on FMG algorithms for Navier-Stokes analysis on unstructured meshes”, Proc. of the Third ECCOMAS Computational Fluid Dynamics Conference and Second ECCOMAS Conference on Numerical Methods in Engineering, J.-A. Desideri, C. Hirsch, P. Le Tallec , E. Onate, M. Pandolfi, J. Périaux, E. Stein (eds.), Computational Fluids Dynamics’96, John Wiley and Sons, 611-615, Paris, 1996
- [96] A. Dervieux, C. Debiez, “Application of mixed element-volume MUSCL methods with 6th order viscosity”, Proc. of the Third ECCOMAS Computational Fluid Dynamics Conference and Second ECCOMAS Conference on Numerical Methods in Engineering, J.-A. Desideri, C. Hirsch, P. Le Tallec ,

- E. Onate, M. Pandolfi, J. Périaux and E. Stein, (eds.), Computational Fluids Dynamics'96, John Wiley and Sons, 414-420, Paris, 1996
- [97] A. Dervieux, I. Lekakis, "ETMA: Efficient Turbulence Models for Aeronautics", Proc. of the Third ECCOMAS Computational Fluid Dynamics Conference and Second ECCOMAS Conference on Numerical Methods in Engineering, J.-A. Desideri, C. Hirsch, P. Le Tallec, E. Onate, M. Pandolfi, J. Périaux, E. Stein, (eds.), Computational Fluids Dynamics'96, John Wiley and Sons, 485-490, Paris, 1996
- [98] A. Dervieux, N. Marco, J.-M. Malé, S. Lanteri, B. Stoufflet, "Parametrization of unstructured shapes and application to 3D aerodynamical design", Proc. of the Third ECCOMAS Computational Fluid Dynamics Conference and Second ECCOMAS Conference on Numerical Methods in Engineering, J.-A. Desideri, C. Hirsch, P. Le Tallec, E. Onate, M. Pandolfi, J. Périaux and E. Stein, (eds.), Minisymposia of ECCOMAS'96, Optimal Shape Design in Fluid Mechanics, John Wiley and Sons, Paris, 1996
- [99] A. Dervieux, J. Francescatto, G. Carre, "Fast solvers for unstructured finite volume methods", Proc. of the First International Symposium on Finite Volume for Complex Applications, F. Benkhaldoun, R. Vilsmeier (eds.), HERMES, 15-28, INSA de Rouen, 1996
- [100] A. Dervieux, J. Francescatto, "A semi-coarsening strategy for unstructured MG with agglomeration", INRIA Research report 2950, 1996
- [101] J. Francescatto, A. Dervieux, M. Ravachol, "Efficiency of the Menter correction for steady and unsteady non smooth flows", Second international Symposium on Turbulence Heat and Mass Transfer, Delft, The Netherlands, June 9-12, 1997, K. Hanjalic, T.W.J. Peeters (Editors), Delft University Press, Page 399-408, 1997
- [102] N. Marco and A. Dervieux, "Multilevel parametrization for aerodynamical optimization of 3D shapes", *Finite Elements in Analysis and Design*, 1997, Vol.26, 259-277.
- [103] J. Francescatto, A. Dervieux, "A semi-coarsening strategy for unstructured MG based on agglomeration", *Int. J. Num. Meth. Fluids*, 26, 927-957, 1998
- [104] M. Braza, A. Dervieux, J.-P. Dussauge (eds). Computation and Comparison of Efficient Turbulence Models for Aeronautics - European Research Project ETMA. Notes in Numerical Fluid dynamics, 65, Vieweg Verlag, 1998
- [105] G. Carré, A. Dervieux, "On the application of FMG to variational approximation of flow problems", *Comp. Fluid. Dyn. J.*, **12**, 99-117, 1999
- [106] C. Debiez, A. Dervieux, "Mixed Element Volume MUSCL methods with weak viscosity for steady and unsteady flow calculation", *Computer and Fluids*, **29**, 89-118, 1999
- [107] C. Debiez, A. Dervieux, K. Mer, and B. Nkonga, Computation of unsteady flows with mixed finite volume/finite element upwind methods, *Int. J. for Numer. Methods in Fluids*, **27**, 193-206 (1998) cf [88]
- [108] A. Dervieux, Problèmes hyperboliques, cours CEA/INRIA/EDF (1998)
- [109] C. Viozat, C. Held, K. Mer, A. Dervieux, On Vertex-centered unstructured finite-volume methods for stretched anisotropic triangulations, *Computer*

Meth. in Applied Mech. and Eng., 190 (35-36), pp.4733-4766,2001

[110] A. Dervieux, S. Lanteri, J.-M. Male, N. Marco, N. Rostaing-Schmidt and B. Stoufflet, New technologies for advanced three-dimensional optimum shape design in aeronautics, *International Journal for numerical methods in fluids*, 30, 179-191, 1999

[111] P.-H. Cournède, Ch. Debiez, A. Dervieux, A positive MUSCL scheme for triangulations, Rapport de Recherche INRIA 3465, 1998

[112] A. Dervieux: "Unstructured multigrid", Conférence invitée ECCOMAS'98 Athènes, Wiley.

[112a] G. Vigo, A. Dervieux, M. Mallet, M. Ravachol, B. Stoufflet, "Extension of methods based on the proper orthogonal decomposition to the simulation of unsteady compressible Navier-Stokes flows", ECCOMAS 98, Wiley, 98, sequels in France-Japan workshop, 2000, and ECCOMAS 2000.

[113] A. Dervieux, H. Guillard, D. Guezengar, C. Viozat, "Analysis of low Mach simulation with compressible upwind codes", Mini-symposium "Low Mach flows" ECCOMAS'98 Athènes, Wiley.

[114] D. Leservoisier, P.-L. George, O. Penanhoat, A. Dervieux, "Application of mesh-adaptive techniques to mesh convergence in complex CFD", Second international symposium on Finite Volumes for Complex Applications, Problems and Perspectives, université de Duisbourg, juillet 1999, Proc. in "Finite Volumes for Complex Applications II", R. Vilsmeier, F. Benkhaldoun, D. Haenel eds., 817-824, Hermes, 1999

[115] C. Viozat, E. Schall, A. Dervieux, D. Leservoisier, "On higher order accurate implicit time advancing for stiff flow problems", Second International symposium on Finite Volumes for Complex Applications, Problems and Perspectives, université de Duisbourg, juillet 1999, Proc. in "Finite Volumes for Complex Applications II", R. Vilsmeier, F. Benkhaldoun, D. Haenel eds., 631-638, Hermes, 1999

[116] A. Iollo, A. Dervieux, J.-A. Desideri and S. Lanteri, "Two stable POD-based approximations to the Navier-Stokes equations", *Computing and Visualization in Science*, 2000 3:1-2 61-66

[117] A. Iollo, A. Dervieux, J.-A. Desideri and S. Lanteri, Stability Properties of POD-Galerkin Approximations for the Compressible Navier-Stokes Equations, *Theoretical and Computational Fluid Dynamics*, 13:377-396, 2000.

[118] E. Schall, R. Lardat, A. Dervieux, B. Koobus and C. Farhat, "Aeroleastic coupling between a thin divergent and high pressure jets", *Revue Européenne des Eléments Finis*, Vol.9,6-7, 835-851, 2000

[119] R. Lardat, B. Koobus, E. Schall, A. Dervieux C. Farhat, "Analysis of a possible coupling in a thrust inverter", *Revue Européenne des Eléments Finis*, Vol.9,6-7,819-834, 2000

[120] R. Lardat, R. Carpentier, B. Koobus, E. Schall, J.F. Guery, P. Della Pietra, "Interaction between a pulsating flow and a perforated membrane", *Revue Européenne des Eléments Finis*, Vol.9,6-7,805-817, 2000

[121] S. Camarri, M.V. Salvetti, B. Koobus, A. Dervieux. "Towards the large-eddy simulation of complex engineering flows". Proceedings of ECCOMAS

2000, European Congress on Computational Methods in Applied Sciences and Engineering, 11-14 September 2000, Barcelona (Spain).

[122] I. Abalakin and A. Dervieux, “Time-averaging in Organised Eddy Simulation”, INRIA research report, 2000

<http://www.inria.fr/RRRT/RR-4040.html>

[123] I. Abalakin, M. Braza, S. Camarri, A. Dervieux, B. Koobus, T. Kozubskaya, P. Rodes, M.-V. Salvetti, “Unstable and unsteady aerodynamics : compared information from different numerical models”, INRIA research report, 4077, 2000, also in “Fluid Dynamics and Aeronautics: new challenges”, J. Périaux, M. Champion, J.-J. Gagnepain. O. Pironneau, B. Stoufflet, P. Thomas Eds., CIMNE, Barcelona, 253-277, 2003 (Proceeding of NFD 2000, Paris, 2001)

[124] A. Dervieux, C. Held, “Optimum Design without adjoint”, ICCFD, Kyoto, 2000.

[125] D. Leservoisier, A. Dervieux, P.-L. George, O. Penanhoat “Mesh Adaption as a tool for certified numerics”, ICCFD. Kyoto, 2000, N. Satofuka ed., Springer, 2001

[126] A. Dervieux, D. Leservoisier, B. Palmerio, Y. Coudière, “Isotropic and anisotropic adaptive meshes : models and convergence properties”, Computational Fluid Dynamics for the 21st century, Proceedings of a Symposium honoring Prof. Satofuka on the occasion of his 60th birthday, Kyoto, Japan, 15-17 July, 2000, M. Hafez, K. Morinishi, J. Périaux Eds., Notes in Numerical Fluid Mechanics, 78, 33-39 Springer, Berlin, 2001

<http://www-sop.inria.fr/members/Alain.Dervieux/satofuka2000.pdf>

[127] C. Held, A. Dervieux “One-Shot airfoil optimisation without adjoint”, *Computers and Fluids*, volume 31, issue 8, on pages 1015 - 1049, cover date November 2002.

[128] D. Leservoisier, P.-L. George, et A. Dervieux, “Métrique continue et optimisation de maillage” Rapport INRIA,RR-4172, Avril 2001

[129] A. Dervieux, N. Marco, C. Held and B. Koobus, “ Hierarchical Principles and Preconditioning for Optimum Design” Eurodays, Paris 6, France ,20-21 mars 2000, in Innovative tools for scientific computation in AERONAUTICAL engineering, 272-280, published by CIMNE (Barcelone),2001

[130] A. Dervieux (ed.) Edition du Numéro spécial *Fluid-Structure Interaction*, in *Revue Européenne des Eléments Finis*, Vol.9,6-7, Hermes, Paris, 2000, Re-edited par Kogan, London, 2003.

[131] S. Camarri, M.V. Salvetti, B. Koobus, A. Dervieux, “Towards the large-eddy simulation of complex engineering flows”, in the proceedings of ECCOMAS 2000, European Congress on Computational Methods in Applied Sciences and Engineering, 11-14 September 2000, Barcelona (Spain).

[132] S. Camarri, M.V. Salvetti, B. Koobus, A. Dervieux, “Large-eddy simulation of a bluff-body flow on unstructured grids”, *Int. J. for Num. Meth. in Fluids*, **40**, 1431-1460, (2002)

[133] S. Camarri, M.V. Salvetti, B. Koobus, A. Dervieux, “Numerical diffusion based on high-order derivatives in MUSCL schemes for LES on unstructured

grids”, in the proceedings of DLES-4, Direct and Large-Eddy Simulation-IV, July 18-20,2001, Twente (Holland)

[134] B. Koobus, and A. Dervieux, “Parallel solutions of three-dimensional flows”, *ERCFTAC Bulletin*, **50**, 21-24,2001

[135] D. Haenel, A. Dervieux, O. Gloth, L. Fournier, S. Lanteri, and R. Vilsmeier, “Development of Navier-Stokes solvers on hybrid grids” in: Numerical Flow Simulation III CNRS-DFG Collaborative Research Programme, Results 2000-2002 , Notes on Numerical Fluid Mechanics and Multidisciplinary Design (NNFM) Hirschel, Dr. Ernst Heinrich (Ed.), Springer, 75, 49-66 (2001)

[136] R. Lardat, B. Koobus, F. Ruffino, C. Farhat, A. Dervieux, “Premières investigations du couplage fluide-structure autour d’un lanceur spatial générique”, RR-4314 (2002)

[137] F. Courty, A. Dervieux, B. Koobus, L. Hascoet, “Reverse Automatic Differentiation for Optimum Design: from Adjoint State Assembly to Gradient Computation”, RR-4363, Janvier 2002, and revised version in *Optimization Methods and Software*, 18:5, 615-627,2003

[138] I. Abalakin, A. Dervieux, T. Kozubskaya, “A vertex centered high order MUSCL scheme applying to linearised Euler acoustics”, INRIA RR-4459 (2002)

[139] S. Camarri, M.-V. Salvetti, A. Dervieux, B. Koobus, “A low diffusion MUSCL scheme for LES on unstructured grids”, RR-4512, Juillet 2002

[140] E. Schall, C. Viozat, B. Koobus, A. Dervieux, “Computation of low Mach thermal flows with implicit upwind methods”, *J. Heat and Mass Transfer*, 46 (2003) 3909-3926 + ECCOMAS2001.

[141] Y. Coudière, B. Palmerio, A. Dervieux, D. Leservoisier, “Accuracy barriers in mesh adaptation”, RR-4528 (aout 2002)

<https://hal.inria.fr/inria-00072060/document>

[142] A. Dervieux, D. Leservoisier, P.-L. George, Y. Coudière, “About theoretical and practical impact of mesh adaptations on approximation of functions and of solution of PDE”, Conférence invitée à ECCOMAS-Swansea, *Int. J. Numer. Meth. Fluids*, 43, 507-516, 2003

[143] A. Dervieux, F. Courty, M. Vazquez and B. Koobus , “Additive multilevel optimization and its application to sonic boom reduction”, in Numerical Methods for Scientific Computing. Variational Problems and Applications, E. Heikkola, Y. Kuznetsov, P. Neittaanmaki and O. Pironneau Eds., 31-44, Conférence invitée à JP60, Jyväskylä, 12-15 juin 2002, CIMNE, Barcelona, 2003.

[144] T. Kozubskaya, I. Abalakin, A. Dervieux, “Computational efficiency of Mathematical models for noise DNS”, AIAA paper, 2002-2585.

[145] T. Kozubskaya, I. Abalakin, A. Dervieux, “On computational efficiency of Euler based models in free flow acoustics”, 6th CEA/ASC AIAA workshop, “from CFD to CAA”, Athens, 7-8 novembre 2002

[146] A. Dervieux, B. Koobus, C. Farhat, M. Vazquez, R. Carpentier, E. Schall, “Numerical models for computing unsteady fast flows and their interaction with structures”, invited conference, Marseille, april 2002, West-East High

Speed Flow Fields, D.E. Zeitoun, J. P eriaux, J.-A. Desideri and M. Marini Eds, 110-119, CIMNE, Barcelona, 2002

[147] A. Dervieux, B. Koobus, E. Schall, R. Lardat and C. Farhat: "Application of unsteady fluid-structure methods to problems in aeronautics and space" in Noel G. Barton and Jacques P eriaux (Eds) Coupling of Fluids, Structures and Waves in Aeronautics Proceedings of a French-Australian Workshop in Melbourne, Australia 3-6 December 2001. pages 57-70, Notes in Num. Fluid Mechanics and Multidisciplinary Design (NNFM), Vol. 85, 2003, Springer

[148] M. Vazquez, A. Dervieux, B. Koobus, "Aerodynamical and sonic boom optimization of a supersonic aircraft" rapport de recherche, RR-4520 2002

[149] M. Vazquez, B. Koobus, A. Dervieux, C. Farhat, "Spatial discretization issues for the energy conservation in compressible flow problems on moving grids", rapport de recherche, RR-4742 2003

[149bis] E. Teupootahiti and co-workers, "5. Coupling of structure and fluids", in Progress in Computational Flow-Structure Interaction, W. Haase, V. Selmin, B. Winzel (Eds.) Notes on Numerical Fluid Dynamics and multidisciplinary Design, 81, 177-190, Springer, 2003

[150] M. Vazquez, B. Koobus and A. Dervieux, "Multilevel optimisation of a supersonic aircraft" *Finite Element in Analysis and Design*, Vol.40, 2101-2124, 2004 (top 10 de l'annee suivante pour ce journal)

[151] M. Vazquez, A. Dervieux, B. Koobus, "Aeroelastic coupling in sonic boom optimisation of a supersonic aircraft", rapport de recherche INRIA RR-4865, juin 2003

[151bis] M. Vazquez, A. Dervieux, "Grid Computing in Genetic Algorithms: A POD-based scheme for Aerodynamic optimization in supersonic flows", International Congress on Evolutionary Methods for Design, Optimization and Control with Applications to Industrial Problems, EUROGEN 2003, 15-17 sept. 2003, G. Bugeada, J.-A. Desideri, J. P eriaux, M. Schoenauer, and G. Winter (Eds.), CIMNE, Barcelona.

[152] F. Courty, D. Leservoisier, P.-L. George, A. Dervieux, "Continuous metrics and mesh optimization", *Applied Numerical Mathematics*, February 2006, Issue 56/2, 117-145

[153] F. Courty, A. Dervieux, "Multilevel functional Preconditioning for shape optimisation", *Int. J. CFD*, 20:7, 481-490, 2006

[154] E. Schall, D. Leservoisier, A. Dervieux, B. Koobus, "Mesh adaptation as a tool for certified computational aerodynamics". *I.J. Num. Meth. Fluids*, 2004; 45:179-196

[155] L. Hascoet, M. Vazquez, A. Dervieux "Automatic Differentiation for Optimum Design, applied to Sonic Boom reduction", Proceedings of the International Conference on Computational Science and its Applications, ICCSA'03, Montreal, Canada, V.Kumar et al., editors, LNCS 2668, pp 85-94, Springer, 2003

[156] Michieli De Vitturi M., Beux F., Lombardi G., Dervieux A., "Optimum shape design for turbulent viscous flows around complete configurations of 2D flying sails", *Journal of Computational Methods in Sciences and Engineering*, volume 4, numbers 1-2, 43-55 2004

- [157] I. Abalakin, A. Dervieux, T. Kozubskaya, On accuracy of noise direct calculation based on Euler model, *International Journal of Aeroacoustics*, Vol. 3, N 2, 2004, pp. 157-180 re-published in [213].
- [158] S. Camarri, B. Koobus, M.V. Salvetti, A. Dervieux, “A low-diffusion MUSCL scheme for LES on unstructured grids”, *Computers and Fluids*, Vol.33. 1101-1129, 2004 (top 7 de l’annee 2005 pour ce journal).
- [159] F. Courty, A. Dervieux, “A SQP-like one-shot algorithm for optimal shape design”, Notes on Numerical Fluid Dynamics, V. Selmin Ed., Springer, to appear
- [160] N. Gourvitch, G. Rogé, I. Abalakin, A. Dervieux, T. Kozubskaya, “A tetrahedral-based superconvergent scheme for aeroacoustics” INRIA, RR-5212, Projet Smash, May 2004
- [161] K. El Omari, E. Schall, B. Koobus, A. Dervieux, “Inviscid flow calculation around a flexible aircraft”, eighth Zaragoza-Pau conference of applied mathematics and statistics. 15-17 sept. 2003, Jaca (E), in Monografias del Seminario Matematico García del Galdeano, López de Silanes et al. Eds., 535-544
- [162] K. El Omari, E. Schall, B. Koobus, A. Dervieux, “Turbulence modeling challenges in airship studies”, eighth Zaragoza-Pau conference of applied mathematics and statistics. 15-17 sept. 2003, Jaca (E), in Monografias del Seminario Matematico García del Galdeano, López de Silanes et al. Eds., 545-554
- [163] A. Dervieux, H. Guillard, S. Wornom, A. Murrone, B. Koobus “Some recent developments of the mixed element volume scheme”, in 16ème Seminaire CEA-GAMNI de Mécanique des Fluides Numerique, Paris, 26-27 janvier 2004
- [164] A.-C. Lesage, O. Allain, A. Dervieux, “A numerical accuracy study for level set formulations”, in Mathematical and Numerical aspects of Low Mach Number Flows, June 21-25, 2004, Porquerolles, France s [165] F. Courty, T. Roy, A. Dervieux, “Continuous Optimal Control approach and mesh adaptation”, European Congress on Computational Methods in Applied Science and Engineering, ECCOMAS 2004, P. Neittaanmaki, T. Rossi, K. Majava, O. Pironneau (eds), I. Lasiecka (assoc. ed.), Jyvaskyla, 24-28 july 2004
- [166] A. Dervieux, F. Courty, T. Roy, M. Vazquez, B. Koobus, “Optimization loops for shape and error control”, PROMUVAL Short Course on Multidisciplinary Modelling, Simulation and Validation in Aeronautics, Barcelona, june 28-29, 2004, in Verification and validation methods for challenging multiphysics problems, edited by B. Bueda, J.C. Courty, A. Guillot, R. Hold, M. Marini, T. Nguyen, K. Papailiou, J. Périaux and D. Schwamborn, CIMNE, 231-247, Barcelona, 2006. Extended version in INRIA RR 5413 (2005).
- [167] K. El Omari, E. Schall, B. Koobus, A. Dervieux, “Numerical Investigations of Turbulent Flow Past a Generic Airship”. INRIA RR-5455 Janvier 2005
- [168] K. El Omari, E. Schall, B. Koobus, A. Dervieux, “Aeroelastic Coupling Between a Low Mach Inviscid Flow and a Flexible Generic Airship”. INRIA RR-5456 Janvier 2005
- [169] P.-H. Cournède, B. Koobus, A. Dervieux, “Positivity statements for a Mixed-Element-Volume scheme on fixed and moving grids”, *Revue Européenne de Mécanique Numérique*, 15:7-8, 767-799, 2006

- [170] T. Kozubskaya, I. Abalakin, A. Dervieux, “Mathematical Models and High Accuracy Numerical Techniques for Solving Computational Aeroacoustics Problems”, International conference on Selected Problems of Modern Mathematics, dedicated to the 200th anniversary of K.G. Jacobi, and the 750th anniversary of the Koenigsberg foundation, Kaliningrad, Russia, april 4-8, 2005
- [171] V. Mariotti, S. Camarri, M.-V. Salvetti, B. Koobus, A. Dervieux, H. Guillard, S. Wornom, “Numerical simulation of a jet in crossflow. Application to GRID computing”. INRIA RR 5638, aout 2005
- [172] P. Helluy, F. Golay, J.-P. Caltagirone, P. Lubin, S. Vincent, D. Drevard, R. Marcer, P. Fraunier, N. Seguin, S. Grilli, A.-C. Lesage, A. Dervieux, O. Allain, “Numerical Simulations of wave breaking”, *Mathematical Modeling and Numerical Analysis*, 2005, vol. 39, p.591-608.
- [173] S. Camarri, M.V. Salvetti, B. Koobus, A. Dervieux, “Bluff-body flow simulation by an hybrid RANS/LES approach”, *Wing and Structures*, 8(6)407-426, 2005
- [174] M. Vazquez , A. Dervieux , B. Koobus, “A methodology for the shape optimization of flexible wings” *Engineering Computations*; Volume: 23 Issue: 4; 344-367 2006
- [175] B. Koobus, S. Camarri, M.V. Salvetti, S. Wornom, A. Dervieux, “Parallel simulation of three-dimensional flows: application to turbulent wakes and two-phase compressible flows”, *Advances in Engineering Software*, 38, 328-337, 2007
- [176] T. Kozubskaya, I. Abalakin, A. Dervieux, “An analysis of NLDE with a mixed element volume scheme”, Finite Element for Flow Problems April 4-6,2005, Swansea, Wales, UK
- [177] F. Courty, T. Roy, B. Koobus, M. Vazquez, A. Dervieux “Error analysis for P1-exact schemes”, Finite Element for Flow Problems April 4-6,2005, Swansea, Wales, UK, (8p)
- [178] A.-C. Lesage, O. Allain, A. Dervieux, “Unified Level Set for Bi-Fluid Flow Simulation, Finite Element for Flow Problems” April 4-6,2005, Swansea, Wales, UK, extended paper “On Level Set modelling of Bi-fluid capillary flow” *I.J. Numer. Methods in Fluids*, 2007; 53:8, 1297-1314
- [179] T. Kozubskaya, I. Abalakin, A. Dervieux, “High accuracy finite volume method for solving linear aeroacoustics problems on unstructured meshes”, EWHSFF05, Beijing, China, 2005
- [180] B. Koobus, L. Hascoet, F. Alauzet, A. Loseille, Y. Mesri, A. Dervieux, “Continuous mesh adaptation models for CFD”, SAROD-2005, Hyderabad, december 8-9, 2005, in ”Recent Trends in Aerospace Design and Optimization”, B. Uthup, S.P. Koruthu *Computational Aeroacoustics*, G. Raman (editor), Multi-Science Publishing, Brentwood, UK, 2008, pp. 141-166, 2008, R.K. Sharma, P. Priyadarshi Eds. pages 3-11, Tata-McGraw Hill, New Delhi, 2005, extended version A. Dervieux, Y. Mesri, F. Alauzet, A. Loseille, L. Hascoet, B. Koobus, “Continuous mesh adaptation models for CFD” *CFD Journal*, vol 16 no 4, 346-355, 2008
- [181] A. Dervieux, M. Vazquez, L. Hascoet, B. Koobus, “Optimization loops for shape and error control”, Post-SAROD Indo-French Workshop, Bangalore,

december 12-13 in "Recent Trends in Aerospace Design and Optimization", B. Uthup, S.P. Koruthu, R.K. Sharma, P. Priyadarshi Eds. pages 363-373, Tata-McGraw Hill, New Delhi, 2005, extended version published in L. Hascoet, M. Vazquez, B. Koobus, A. Dervieux, "A framework for adjoint-based shape design and error control" *CFD Journal*, vol 16 no 4, 454-464, 2008

[182] A. Dervieux, "Old (1 quart) and recent (1 small pint) things in mesh adaption", séminaire de l'université de Montréal, sept. 2005.

[183] J. Sokolowsky, A. Dervieux, Minisymposium Optimisation de forme: avant-propos, CANUM06, *ESAIM: Proceedings*, 10,2007.

[184] A. Dervieux, Y. Mesri, F. Courty, L. Hascoet, B. Koobus, M. Vazquez, "Calculs de sensibilité par différentiation pour l'Aérodynamique" CANUM06, *ESAIM: Proceedings*, 10,2007.

[185] S. Sirmivas, S. Wornom, A. Dervieux, B. Koobus, O. Allain, A study of LES models for the simulation of a turbulent flow around a truss spar geometry, OMAE2006-92355, Proceedings of OMAE'06, 25rd International Conference on Offshore and Arctic Engineering, 4-9 June, 2006, Hamburg, Germany.

<http://www-sop.inria.fr/members/Alain.Dervieux/OMAE2007.pdf>

[186] M.V. Salvetti, S. Camarri, B. Koobus and A. Dervieux, "A locally superconvergent scheme for the simulation of turbulent flows in complex geometries", ICCFD4, The Fourth International Conference on Computational Fluid Dynamics, Ghent, Belgium, July 10-14, 2006. Edited by C. Groth and D. W. Zingg, Springer

[187] K. El Omari, E. Schall, B. Koobus, A. Dervieux, M. Amara, J.P. Dumas, "Fluid-structure coupling of a turbulent flow and a generic blimp structure at high angle of attack", 9th Conference of Applied Mathematics and Statistics, Jaca, Spain, september 19-21, 2005, Monografias del Seminario Matematico García del Galdeano, López de Silanes et al. Eds., 2006

[188] Y. Bentaleb, E. Schall, B. Koobus, A. Dervieux, M. Amara, "A Numerical Method for Simulating turbulent shear flows with low-Reynolds k-eps models", 9th Conference of Applied Mathematics and Statistics, Jaca, Spain, september 19-21, 2005, Monografias del Seminario Matematico García del Galdeano, López de Silanes et al. Eds., 2006 *Computational Aeroacoustics*, G. Raman (editor), Multi-Science Publishing, Brentwood, UK, 2008, pp. 141-166, 2008

[189] F. Alauzet, A. Loseille, A. Dervieux, P. Frey, "Multi-dimensional continuous metric for mesh adaptation", Proc. 15th International Meshing Roundtable, Birmingham, AL, USA, 2006.

[190] A.C. Lesage, A. Dervieux, O. Allain, "A local mass conservation Method for the Level Set Method applied to capillary incompressible flow", Eccomas CFD 2006, European Conference on Computational Fluid Dynamics. The Netherlands. September 5-8, 2006.

[191] G. Pagano, S. Camarri, M.-V. Salvetti, B. Koobus, and A. Dervieux, "Strategies for sRANS/VMS-LES coupling", INRIA RR-5954, 2006.

[192] M.-V. Salvetti, B. Koobus, S. Camarri, A. Dervieux, "Simulation of bluff-body flows through a hybrid RANS/VMS-LES model", IUTAM, Corfu, june 18-22, 2007, IUTAM Bookseries, 14,2009

<http://www-sop.inria.fr/members/Alain.Dervieux/Corfou.pdf>

[193] D. Guegan, O. Allain, F. Alauzet and A. Dervieux, “Mesh adaptation applied to unsteady simulation of bi-fluid flow with Level-Set”, in 14th International Conference on Finite Element in Flow problems, 26-28 mars 2007, Santa Fe, NM (2007)

[194] A. Dervieux, A. Loseille and F. Alauzet, “High-order adaptive method applied to high-speed flows” West-East High Speed Flow Field Conference, nov. 19-22 2007, Moscou, Russia (CD-ROM)

[195] M.-V. Salvetti, S. Camarri, B. Koobus and A. Dervieux, LES and hybrid RANS/LES simulation of complex flows on unstructured grids”, West-East High Speed Flow Field Conference, nov. 19-22 2007, Moscou, Russia (CD-ROM) *Computational Aeroacoustics*, G. Raman (editor), Multi-Science Publishing, Brentwood, UK, 2008, pp. 141-166, 2008

[196] H. Ouvrard, S. Wornom, B. Koobus, M.-V. Salvetti, S. Camarri and A. Dervieux, “Computation of complex unsteady flows around bluff-bodies through VMS-LES modeling”, West-East High Speed Flow Field Conference, nov. 19-22 2007, Moscou, Russia (CD-ROM)

[197] M. Martinelli, A. Dervieux and L. Hascoet, “Strategies for computing second-order derivatives in CFD design problems”, West-East High Speed Flow Field Conference, nov. 19-22 2007, Moscou, Russia

<http://www-sop/members/Alain.Dervieux/wehsff07.pdf>

[198] R. Bourguet, M. Braza, A. Dervieux and G. Harran, Transition features in transonic flow around a NACA0012 airfoil by Navier-Stokes simulation and low-order modeling”, West-East High Speed Flow Field Conference, nov. 19-22 2007, Moscou, Russia

[199] R. Bourguet, M. Braza, and A. Dervieux, ”Reduced-order modelling for unsteady transonic flows around an airfoil”, *Physics of Fluids*, 19 . pp. 111701-111701.(2007)

[200] Y. Mesri, F. Alauzet and A. Dervieux, “A strongly coupled mesh adaptive optimal shape algorithm”, NMF-ICFD, Reading (UK), march 2007

[201] Y. Mesri, F. Alauzet and A. Dervieux, “Coupling optimum shape design and mesh adaptation for sonic boom reduction”, 42th CAA-AAAF, Sophia-Antipolis (F), march 2007

[202] F. Alauzet, S. Borel-Sandou, L. Daumas, A. Dervieux, Q. Dinh, S. Kleinfeld, A. Loseille, Ys. Mesri and G. Rogé, “Multi-model and multi-scale optimization strategies”, *Revue Européenne de Mécanique Numérique*, 17:1-2 247-273 (2008)

[203] A. Loseille, A. Dervieux, P.J. Frey and F. Alauzet, “Achievement of global second-order mesh convergence for discontinuous flows with adapted unstructured meshes”, AIAA paper 2007-4186, Miami, FL, USA, June 2007.

[204] A. Loseille, A. Dervieux, P. Frey and F. Alauzet, “Achievement of second order mesh convergence for unstructured adaptive steady flow simulations”, FEF’07, Santa Fe, NM, USA, March 2007.

[205] R. Bourguet, M. Braza, G. Harran and A. Dervieux, “Modèle réduit POD-Galerkin pour la prédiction découlements transitionnels compressibles autour de surfaces portantes”, 42th CAA-AAAF, Sophia-Antipolis (F), march 2007 s [206] A.-C. Lesage, O. Allain and A. Dervieux, “On Level Set modelling of Bi-fluid capillary flow”, *Int.J. Numer. Methods in Fluids*, 53:8, 1297-1314, 2007

[207] R. Bourguet, M. Braza, G. Harran, A. Dervieux (2007) “Low-order modeling for unsteady separated compressible flows by POD-Galerkin approach”. In: IUTAM Symposium on Unsteady Separated Flows and their Control, 2007-06-18, Greece.

[208] M.-V. Salvetti, H. Ouvrard, B. Koobus, S. Camarri and A. Dervieux, “A Hybrid Model Based on Continuous Fluctuation Corrections” INRIA RR 6564, 2008.

[209] F. Beux, A. Dervieux (Eds), *Shape Design in Aerodynamics, Parameterization and sensitivity*, special issue of *Revue Européenne de Mécanique Numérique*, 17:1-2 (2008)

[210] M.V. Salvetti, S. Camarri, A. Dervieux, B. Koobus, H. Ouvrard, S. Wornom, “A numerical method for large-eddy simulation on unstructured grids”, Proceedings of Contactforum KVAB (Flamish Science Academy) *Modern Techniques for Solving Partial Differential Equations*, 19 June 2008, Bruxelles (Belgium), in press. Invited Paper.

[211] A. Dervieux, C. Farhat, B. Koobus, M. Vázquez, “Total energy conservation in ALE schemes for compressible flows”, *Revue Européenne de Mécanique Numérique*, 19:4, 337-363(2010)

[212] H. Ouvrard, S. Camarri, B. Koobus, A. Dervieux and M.V. Salvetti, “Numerical viscosity, SGS modeling and grid refinement in LES and in variational multiscale LES”, World Congress on Computational Mechanics (WCCM8), 5th European Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008), June 30 - July 5, 2008, Venice, Italy.

[213] I. Abalakin, A. Dervieux, T. Kozubskaya, “On the accuracy of direct noise calculations based on the Eule model”, *Computational Aeroacoustics*, Ganesh Raman ed., Multi-Science Publishing, Brentwood, UK, 141-166, 2008

[214] A.-C. Lesage, A. Dervieux, D. Guégan, “Conservation correction by dual level set” INRIA RR 7089, 2009.

[215] A. Loseille, A. Dervieux, F. Alauzet, “Fully anisotropic goal-oriented mesh adaptation for 3D steady Euler equations”, *Journal of Computational Physics*, 229 (2010) 2866-2897.

[216] R. Bourguet, M. Braza, and A. Dervieux, “Reduced order modeling of transonic flows around an airfoil submitted to small deformations”, *Journal of Computational Physics*, 2010 230, Number 1, January 2011,159-184

<http://www-sop.inria.fr/members/Alain.Dervieux/POD-Deform.pdf>

[217] B. Koobus, F. Alauzet, A. Dervieux, “Some compressible numerical models for unstructured meshes”. CFD Handbook, F. Magoulès Ed., CRC Press, Boca Raton, London, New York, Washington D.C.(2011)

<http://www-sop.inria.fr/members/Alain.Dervieux/CFD-chap.pdf>

[218] H. Ouvrard and M.V. Salvetti and S. Camarri and S. Wornom and A. Dervieux and B. Koobus, “LES, variational multiscale LES and hybrid models”, CFD Handbook, F. Magoules Ed., CRC Press, Boca Raton, London, New York, Washington D.C.,(2011)

[219] H. Ouvrard, B. Koobus, A. Dervieux, M. V. Salvetti, “Classical and variational multiscale LES of the flow around a circular cylinder on unstructured grids”, *Computers & Fluids*, 39 (2010) 1083–1094

[220] I.V. Abalakin, T.K. Kozubskaya and A. Dervieux, “High Accuracy Finite Volume Method for Solving Nonlinear Aeroacoustics Problems on Unstructured Meshes”, *Chinese Journal of Aeroacoustics*, vol. 19, No. 2, 2006.

[221] A. Loseille, F. Alauzet, D. Guégan and A. Dervieux, Anisotropic goal-oriented mesh optimization, Mamern’09, Pau, France, June 2009.

[222] A. Loseille, A. Dervieux and F. Alauzet, A 3D goal-oriented anisotropic mesh adaptation applied to inviscid flows in aeronautics, Proc. of 48th AIAA Aerospace Sciences Meeting and Exhibit, AIAA-2010-1067, Orlando, FL, USA, January 2010.

[223] A. Belme, M. Martinelli, L. Hascoet, V. Pascual, A. Dervieux, “AD-based perturbation methods for uncertainties and errors “ , *International Journal of Engineering Systems Modelling and Simulation*, vol.2:1/2 (2010) 65-74.

[224] D. Guégan, O. Allain, A. Dervieux and F. Alauzet An L_∞ - L_p mesh adaptive method for computing unsteady bi-fluid flows. *Int. J. Numer. Meth. Engrng*, 84:11,1376-1406, 2010.

[225] A. Belme, A. Dervieux and F. Alauzet, Goal-oriented anisotropic mesh adaptation for unsteady flows, Proceeding ECCOMAS CFD Conference (oral presentation), Lisbon, june 2010.

[226] A. Belme, A. Dervieux and F. Alauzet, Mesh-adaptive computation of linear and non-linear acoustics, Communication orale, CEAA 2010, Svetlogorsk (Russia), September 22-25, 2010.

[227] A. Belme, A. Dervieux, B. Koobus, S. Wornom, M.V. Salvetti, Application of hybrid and vms-les turbulent models to aerodynamic simulations, Proceeding (to appear) of ICAS Conference , Nice, September 2010.

[228] A. Loseille, A. Dervieux, F. Alauzet, Fully anisotropic goal-oriented mesh adaptation :3D anisotropic mesh adaptation for functional outputs, IV European Conference on Computational Mechanics, ECCM2010. Palais des Congrès, Paris, France, May 16-21, 2010.

[229] S. Wornom, H. Ouvrard, M.-V. Salvetti, B. Koobus, A. Dervieux, “Variational multiscale large-eddy simulations of the flow past a circular cylinder : Reynolds number effects”, *Computer and Fluids*, Volume 47, Issue 1, August 2011, Pages 44–50.

[230] A. Belme, A. Dervieux, F. Alauzet, “Time Accurate Anisotropic Goal-Oriented Mesh Adaptation for Unsteady Flows”, *J. Comp. Phys.*, 2012, Volume 231, Issue 19, 1 August 2012, Pages 6323–6348

[231] F. Alauzet, A. Belme, A. Loseille, D. Guégan, A. Dervieux, “Goal-oriented anisotropic mesh adaptation based on a priori estimates”, invited con-

ference to the Workshop on Adaptive Methods with Applications in Fluid Dynamics, April 25 - 27, 2012, WIAS, Berlin.

[232] H. Alcin, B. Koobus, O. Allain, A. Dervieux, “Efficiency and scalability of a two-level Schwarz algorithm for incompressible and compressible flows”, *International Journal for Numerical Methods in Fluids*, Volume 72, Issue 1, pages 69–89, 2013

[233] B. Sainte-Rose, O. Allain, C. Leca, A. Dervieux, “A study of LES models for the simulation of a turbulent flow around supercritical tandem cylinders” Proceedings of the ASME 2014 33rd International Conference on Ocean, Offshore and Arctic Engineering, OMAE 2014 June 8-13, 2014, San Francisco, California, USA OMAE 2014-24031

[234] G. Brethes, O. Allain, A. Dervieux, “Main issues in anisotropic mesh adaptive FMG”, 11th World Congress on Computational Mechanics (WCCM XI)/ 5th European Conference on Computational Mechanics (ECCM V)/ 6th European Conference on Computational Fluid Dynamics (ECFD VI), July 20-25, 2014, Barcelona, Spain

[235] C. Moussaed, E. Itam, S. Wornom, B. Koobus, M.V. Salvetti, A. Dervieux, “Dynamic and hybrid variational multiscale models for the simulation of bluff-body flows on unstructured grids” 11th World Congress on Computational Mechanics (WCCM XI)/ 5th European Conference on Computational Mechanics (ECCM V)/ 6th European Conference on Computational Fluid Dynamics (ECFD VI), July 20-25, 2014, Barcelona, Spain

[236] C. Moussaed, S. Wornom, B. Koobus, M.V. Salvetti and A. Dervieux, “Dynamic variational multiscale LES of bluff body flows on unstructured grids”, ICCFD 2013 : International Conference on Computational Fluid Dynamics. Berlin, Germany, May 22-23, 2013. Full paper published in World Academy of Science, Engineering and Technology, Issue 77, pp. 595-602, May 2013 (<http://www.waset.org/journals/waset/v77/v77-97.pdf>).

[237] C. Moussaed, S. Wornom, B. Koobus, A. Dervieux, T. Deloze, Y. Hoarau, M. Elhimer, M. Braza, “VMS- and OES-based hybrid simulations of bluff body flows”, ERCOFTAC Symposium on Unsteady Separation in Fluid-Structure Interaction, Mykonos, Greece, 17-21 June 2013. Extended paper in *Advances in Fluid-Structure Interaction*, Springer, 2016.

[238] C. Moussaed, S. Wornom, B. Koobus, M.V. Salvetti and A. Dervieux, “A dynamic VMS-LES model and its hybrid extension for bluff body flows”, European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS), Vienna, Austria, September 10-14, 2012.

[239] C. Moussaed, M.V. Salvetti, S. Wornom, B. Koobus and A. Dervieux, “Simulation of the flow past a circular cylinder in the supercritical regime by blending RANS and variational-multiscale LES models”, *Journal of Fluids and Structures*, Volume 47, May 2014, pages 114-123.

[240] C. Moussaed, S. Wornom, M.V. Salvetti, B. Koobus and A. Dervieux, “Impact of dynamic subgrid-scale modeling in variational multiscale large-eddy simulation of bluff body flows”, *Acta Mechanica*, 12 , 3309-3323, 2014, DOI 10.1007/s00707-014-1112-6.

[241] Sainte-Rose, B., Lenhardt, X., Allain, O., and Dervieux, A., 2013.

“Numerical Study of the Turbulent Wake of a Towed or Auto-propelled Axisymmetrical Body in a Stratified Medium using LES-VMS”. 32nd Offshore Marine and Arctic Engineering Conference, OMAE 2013-10949.

[242] C. Moussaed , E. Itam , S. Wornom , B. Koobus , M.V. Salvetti , A. Dervieux, “Dynamic and hybrid VMS models for the simulation of bluff-body flows”, ECFD 2014 - Barcelona, sept. 2014

[243] E. Itam , S. Wornom , B. Koobus , A. Dervieux, “Application of a hybrid variational multiscale model to massively separated flows”, 3AF - 8 avril 2015, Toulouse,

<https://hal.inria.fr/hal-01256081>

[244] E. Itam, S. Wornom, B. Koobus, B. Sainte-Rose, A. Dervieux, “Simulation of multiple blunt-body flows with a hybrid variational multiscale model”, Conference on Modelling Fluid Flow (CMFF’15) The 16th International Conference on Fluid Flow Technologies Budapest, Hungary, September 1-4, 2015 Extended paper accepted in International Journal of Heat and Fluid Flow, 2016.

[245] A. Loseille, A. Dervieux, F. Alauzet, “Anisotropic Norm-Oriented Mesh Adaptation for A Compressible Inviscid Flow”, AIAA paper, 2015–2037

[246] G. Brethes, A. Loseille, F. Alauzet, A. Dervieux, “Convergent error-controlled mesh adaptation”, VII International Conference on Adaptive Modelling and Simulation, ADMOS 2015, F. Chinesta, L. Chamoin, P. Diez (Eds)

[247] G. Brethes, A. Loseille, F. Alauzet, A. Dervieux, “Main issues in anisotropic mesh adaptive FMG”, PANACM 2015, 1st. Pan-American Congress on Computational Mechanics Buenos Aires, 27-29 April 2015

[248] G. Brethes, A. Loseille, F. Alauzet, A. Dervieux, “Towards a certified model of numerical uncertainty in CFD”, Conference on Modelling Fluid Flow (CMFF 15), The 16th International Conference on Fluid Flow Technologies Budapest, Hungary, September 1-4, 2015

[249] G. Brethes, O. Allain, A. Dervieux, “A mesh-adaptative metric-based full multigrid for the Poisson problem”, International Journal for Numerical Methods in Fluids, 79-1, 30–53, 2015

[250] E. Gauci, F. Alauzet, A. Loseille, A. Dervieux, “Towards goal-oriented mesh adaptation for fluid-structure interaction”, VI International Conference on Computational Methods for Coupled Problems in Science and Engineering, COUPLED PROBLEMS 2015, B. Schrefler, E. Onate and M. Papadarakakis(Eds), May 18-20, 2015, San Servolo, Venice, Italie,

[251] Itam, S. Wornom, B. Koobus, B. Sainte-Rose, A. Dervieux, “Simulation of multiple blunt-body flows with a hybrid variational multiscale model”, Conference on Modelling Fluid Flow (CMFF 15) The 16th International Conference on Fluid Flow Technologies, Budapest, Hungary, September 1-4, 2015

[252] E. Itam, S. Wornom, B. Koobus and A. Dervieux, “A Volume-agglomeration multirate time advancing approach”, ECCOMAS Congress 2016, VII European Congress on Computational Methods in Applied Sciences and Engineering M. Papadarakakis, V. Papadopoulos, G. Stefanou, V. Plevris (eds.) Crete Island, Greece, 5–10 June 2016

- [253] G. Brèthes, A. Dervieux, “Anisotropic Norm-Oriented Mesh Adaptation for a Poisson problem”, *Journal of Computational Physics* 322 (2016) 804–826.
- [254] E. Gauci, F. Alauzet, and A. Dervieux, “Goal-oriented mesh adaptation for moving mesh FSI problems”, *ECCOMAS Congress 2016, VII European Congress on Computational Methods in Applied Sciences and Engineering*, M. Papadrakakis, V. Papadopoulos, G. Stefanou, V. Plevris (eds.), Crete Island, Greece, 5–10 June 2016.
- [255] E. Itam, S. Wornom, B. Koobus, and A. Dervieux, “Hybrid simulation of high-Reynolds number flows relying on a variational multiscale model”, paper in 6th Symposium on Hybrid RANS-LES Methods, Strasbourg, France, 26-28 September 2016. Extended paper in “Progress in Hybrid RANS-LES Modelling”, *Notes on Numerical Fluid Mechanics and Multidisciplinary Design*, 137, pages 207-217 Springer, 2018.
- [256] G. Brèthes, A. Dervieux, “A tensorial-based mesh adaptation for a Poisson problem”, *European Journal of Computational Mechanics* Volume 26, 2017 - Issue 3, 245-281.
- [257] Carabias, A. and Belme, A. and Loseille, A. and Dervieux, A., “Anisotropic goal-oriented error analysis for a third-order accurate CENO Euler discretization”, *International Journal for Numerical Methods in Fluids*, Volume 86, Issue 6, 28 February 2018, Pages 392–413.
- [258] E. Itam, S. Wornom, B. Koobus, and A. Dervieux, “Hybrid versus pure LES models comparison for subcritical cylinders flows”, *ERCOFTAC Workshop Direct and Large-Eddy Simulation 11 (DLES11)*, May 29-31, 2017, Pisa, Italy, Special Issue: Direct and Large Eddy Simulation M.V. Salvetti, J. Fröhlich, B. J. Geurts, H. Kuerten Eds., 2018, Springer Netherlands.
- [259] Eléonore Gauci, Anca Belme, Alexandre Carabias, Adrien Loseille, Frédéric Alauzet, Alain Dervieux, “A priori error-based mesh adaptation in CFD”, *SCPDE17 Hong Kong*, Special Issue published by the international journal: *Methods and Applications of Analysis*, International Press, 01/2019; 26(2):195-216
- [260] Alain Dervieux, Eléonore Gauci, Loic Frazza, Anca Belme, Alexandre Carabias, Adrien Loseille, Frédéric Alauzet, “Mesh adaptation for k-exact CFD approximations”, *Numerical Methods for Flows, FEF 2017 Selected Contributions*, van Brummelen, E.H., Corsini, A., Perotto, S., Rozza, G. Eds. (from FEF-2017, Roma), *Lecture Notes in Computational Science and Engineering*, Springer, 2020.
- [261] Emmanuelle Itam, Stephen Wornom, Bruno Koobus, Alain Dervieux. “Combining a DDES model with a dynamic variational multiscale formulation”, *12th International ERCOFTAC Symposium on Engineering Turbulence Modelling and Measurements*, La Grande Motte, september 26-28, 2018
- [262] Chapters 20, 21, 45, 48 of “Uncertainty Management for Robust Industrial Design in Aeronautics”, C. Hirsch et al. (eds.), *Notes on Numerical Fluid Mechanics and Multidisciplinary Design* 140, 2019
- [263] A. Belme and F. Alauzet and A. Dervieux, “An a priori anisotropic Goal-Oriented Estimate for Viscous Compressible Flow and Application to Mesh

Adaptation”, *J. Comp. Phys.*, 376, 1051-1088, 2019.

[264] E. Itam, S. Wornom, B. Koobus and A. Dervieux, “A volume-agglomeration multirate time advancing for high Reynolds number flow simulation”. *Int. J. Numer. Meth. Fluids*, (2019) 89: 8, 326-341

[265] Loïc Frazza, Frederic Alauzet, Adrien Loseille, and Alain Dervieux, “Nonlinear corrector for RANS equations”, 2018 Fluid Dynamics Conference, AIAA AVIATION Forum, (AIAA 2018-3242) <https://doi.org/10.2514/6.2018-3242>

[266] A. Belme, F. Alauzet, A. Dervieux, “A priori-based mesh adaptation for viscous compressible flows”, 6th European Conference on Computational Mechanics (ECCM 6) 7th European Conference on Computational Fluid Dynamics (ECFD 7) 11-15 June 2018, Glasgow, UK, <http://www.eccm-ecfd2018.org/frontal/docs/Ebook-Glasgow-2018-ECCM-VI-ECFD-VII.pdf>

[267] L. Frazza, A. Loseille, A. Dervieux, F. Alauzet, “Nonlinear corrector for Reynolds averaged Navier Stokes equations”, *Int. J. Numer. Meth. Fluids* 2019;91:11,567-586.

[268] A.Dervieux, “To be structured, or unstructured, fifty years of slings and arrows”, Numéro Spécial Comptes Rendus Académie des Sciences, Mécanique, 2022.

[269] Dervieux, A., Alauzet, F., Loseille, A., Koobus, B. (2022). Mesh Adaptation for Computational Fluid Dynamics 1. ISTE Ltd, London, and John Wiley and Sons, New York. (ISBN: 9-781-78630-831-3)

[270] Dervieux, A., Alauzet, F., Loseille, A., Koobus, B. (2022). Mesh Adaptation for Computational Fluid Dynamics 2. ISTE Ltd, London, and John Wiley and Sons, New York. (ISBN: 9-781-78630-832-0)