

## Papers in archival journals

1. Z. Pouransari, L. Vervisch, A. Johansson (2013) Heat release effects on mixing scales of non-premixed turbulent wall-jets: A direct numerical simulation study Int. J. Heat and Fluid Flow, 40(4), pp. 65-80.
2. Y. S. Niu, L. Vervisch, P. D. Tao (2013), An optimization-based approach to detailed chemistry tabulation: Automated progress variable definition Combust. Flame, 160(4), pp. 776-785.
3. C. Merlin, P. Domingo, L. Vervisch (2013) Immersed boundaries in Large Eddy Simulation of compressible flows, Flow Turbulence and Combustion, 90(1), pp. 29-68.
4. G. Lodier, C. Merlin, P. Domingo, L. Vervisch, F. Ravet (2012) Self-ignition scenarios after rapid compression of a turbulent mixture weakly-stratified in temperature, Combust. Flame, 159(11), pp. 3358-3371.
5. E. Albin, Y. D'Angelo, L. Vervisch (2012) Using staggered grids with characteristic boundary conditions when solving compressible reactive Navier-Stokes equations, Int. J. Numer. Meth. Fl., 68(5): 546-563.
6. N. Enjalbert, P. Domingo, L. Vervisch (2012) Mixing time-history effects in Large Eddy Simulation of non-premixed turbulent flames: Flow-Controlled Chemistry Tabulation Combust. Flame, 159(1), pp. 336-352.
7. G. Ribert, K. Wang, L. Vervisch (2012) A multi-zone self-similar chemistry tabulation with application to auto-ignition including cool-flames effects Fuel, 91(1): 87-92.
8. P. D Nguyen, V. Moureau, L. Vervisch and N. Perret (2012) A massively parallel solution strategy for efficient thermal radiation simulation Journal of Physics, 369:012017.
9. C. Merlin, P. Domingo, L. Vervisch (2012) Large Eddy Simulation of turbulent flames in a Trapped Vortex Combustor (TVC) - A flamelet presumed-pdf closure preserving laminar flame speed Comptes Rendus Mécanique, 340 (11/12), pp. 917-932.
10. E. Albin, Y. D'Angelo, L. Vervisch (2011) Flow streamline based Navier-Stokes Characteristic Boundary Conditions: modeling for transverse and corner outflows, Computer and Fluids, 51(1): 115-126.

11. G. Lodier, L. Vervisch, V. Moureau, P. Domingo (2011) Composition-space premixed flamelet solution with differential diffusion for in situ flamelet-generated manifolds Combust. Flame, 158(10): 2009-2016.
12. V. Moureau, P. Domingo, L. Vervisch (2011) From Large-Eddy Simulation to Direct Numerical Simulation of a lean premixed swirl flame: Filtered Laminar Flame-PDF modeling, Combust. Flame, 158(7): 1340-1357.
13. G. Lecocq, S. Richard, J.-B. Michel, L. Vervisch (2011) A new LES model coupling flame surface density and tabulated kinetics approaches to investigate knock and pre-ignition in piston engines, Proc. Combust. Inst., 33(2): 3105-3114.
14. G. Lecocq, S. Richard, O. Colin, L. Vervisch (2011) Hybrid presumed pdf and flame surface density approaches for Large-Eddy Simulation of premixed turbulent combustion Part 1: Formalism and simulation of a quasi-steady burner, Combust. Flame, 158(6): 1201-1214.
15. V. Moureau, P. Domingo, L. Vervisch (2011) Design of a massively parallel CFD code for complex geometries, Comptes Rendus Mécanique, 339 (2/3), pp. 141-148.
16. G. Lecocq, S. Richard, O. Colin, L. Vervisch (2011) Hybrid presumed pdf and flame surface density approaches for Large-Eddy Simulation of premixed turbulent combustion Part 2: Early flame development after sparking, Combust. Flame, 158(6): 1215-1226.
17. K. Wang, G. Ribert, P. Domingo, L. Vervisch (2010) Self-similar behavior and chemistry tabulation of burnt-gases diluted premixed flamelets including heat-loss, Combust. Theory and Modelling, 14(4): 541-570.
18. D. Veynante, G. Lodato, P. Domingo, L. Vervisch, E. R. Hawkes (2010) Estimation of three-dimensional flame surface densities from planar images in turbulent premixed combustion, Exp. in Fluids, 49: 267-278.
19. G. Lecocq, S. Richard, O. Colin, L. Vervisch (2010) Gradient and counter-gradient modelling in premixed flames: theoretical study and application to the LES of a Lean premixed turbulent swirl-burner, Comb. Sci. Tech., 182(4-6):465-479.
20. L. Vervisch, P. Domingo, G. Lodato, D. Veynante (2010) Scalar energy fluctuations in Large-Eddy Simulation of turbulent flames: Statistical budgets and mesh quality criterion, Combust. Flame, 157(4), pp. 778-789.
21. V. Subramanian, P. Domingo, L. Vervisch (2010) Large-Eddy Simulation of forced ignition of an annular bluff-body burner, Combust. Flame, 157(3), pp. 579-601.

22. P.-D. Nguyen, L. Vervisch, V. Subramanian, P. Domingo (2010) Multi-dimensional flamelet-generated manifolds for partially premixed combustion, Combust. Flame, 157(1), pp. 43-61.
23. G. Lodato, L. Vervisch, P. Domingo (2009) A compressible wall-adapting similarity mixed model for large-eddy simulation of the impinging round jet, Phys. Fluids, Vol. 21, 035102.
24. G. Godel, P. Domingo, L. Vervisch (2009) Tabulation of NO<sub>x</sub> chemistry for Large-Eddy Simulation of non-premixed turbulent flames, Proc. Combust. Inst. Vol. 32, pp 1555-1551.
25. D. Veynante, B. Fiorina, P. Domingo L. Vervisch (2008) Using self-similar properties of turbulent premixed flames to downsize chemical tables in high-performance numerical simulations, Combust. Theory and Modeling, 12(6), pp 1055-1088.
26. J. Galpin, A. Naudin, L. Vervisch, C. Angelberger, O. Colin, P. Domingo (2008) Large-Eddy Simulation of a fuel lean premixed turbulent swirl burner, Combust. Flame, 155(1), pp 247-266.
27. G. Lodato, P. Domingo, L. Vervisch (2008) Three-dimensional boundary conditions for Direct and Large-Eddy Simulation of compressible flows, J. of Comp. Phys., 227(10), pp 5105-5143.
28. J. Galpin, C. Angelberger, A. Naudin, L. Vervisch (2008) Large-Eddy Simulation of H<sub>2</sub>-air auto-ignition using tabulated detailed chemistry, J. of Turbulence, 9(13), 2008.
29. P. Domingo, L. Vervisch, D. Veynante (2008) Large-Eddy Simulation of a lifted methane jet flame in a vitiated coflow Combust. Flame, 152(3), pp. 415-432.
30. G. Subramanian, R. Bounaceur, A. Pirez Da Cruz, L. Vervisch (2007) Chemical impact of CO and H<sub>2</sub> addition on the auto-ignition delay of homogeneous n-heptane/air mixtures, Comb. Sci. Tech., 179(9), pp. 1937-1962.
31. P. Domingo, L. Vervisch (2007) DNS of partially premixed flame propagating in a turbulent rotating flow, Proc. Combust. Inst. Vol. 31, pp. 1657-1664.
32. X. Paubel, A. Cessou, D. Honoré, L. Vervisch, R. Rsiava (2007) A flame stability diagram for piloted non-premixed oxycombustion of low calorific residual gases, Proc. Combust. Inst. Vol. 31, pp 3385-3392.
33. C. Péra, J. Réveillon, L. Vervisch, P. Domingo (2006) Modeling subgrid scale mixture fraction variance in LES of evaporating spray, Combust. Flame, 146(4), pp. 635-648.

34. L. Vervisch (2006) Book review, T. Poinso and D. Veynante, "Theoretical and Numerical Combustion" (second ed.), Edwards, USA, 2005, 520 pp. Combust. Flame, 144(1), pp 642-643.
35. L. Vervisch, P. Domingo (2006) Two recent developments in numerical simulation of premixed and partially premixed turbulent flame, Comptes Rendus Mécanique, 334 (8/9), pp. 523-530.
36. P. Domingo, L. Vervisch, S. Payet and R. Hauguel (2005) DNS of a Premixed Turbulent V-Flame and LES of a Ducted-Flame using a FSD-PDF subgrid scale closure with FPI tabulated chemistry, Combust. Flame, 143(4), pp. 566-586.
37. K.N.C. Bray, P. Domingo, L. Vervisch (2005) The role of progress variable in models for partially premixed turbulent combustion Combust. Flame, 141(4), pp. 431-437.
38. J. Réveillon, L. Vervisch (2005) Analysis of weakly turbulent diluted-spray flames and combustion regimes, J. Fluid Mech., 537, pp. 317-347.
39. P. Domingo, L. Vervisch, J. Réveillon (2005) DNS analysis of partially premixed combustion in spray and gaseous turbulent-flame bases stabilized in hot air Combust. Flame, 140(3), pp. 172-195.
40. R. Hauguel, L. Vervisch, P. Domingo (2005) DNS of premixed turbulent V-Flame: coupling spectral and finite difference methods, Comptes Rendus Mécanique, 333 (1), pp. 95-102.
41. B. Fiorina, O. Gicquel, L. Vervisch, S. Carpentier, N. Darabiha (2005) Approximating the chemical structure of partially-premixed and diffusion counter-flow flames using FPI flamelet tabulation Combust. Flame, 140(3), pp. 147-160.
42. B. Fiorina, O. Gicquel, L. Vervisch, S. Carpentier, N. Darabiha (2005) Premixed turbulent combustion modeling using tabulated detailed chemistry and PDF. Proc. Combust. Inst., 30(1), pp. 867-874.
43. L. Vervisch, P. Domingo, M. Rullaud, R. Hauguel (2004) Three facets of turbulent combustion modeling: DNS of Premixed V-flame, LES of lifted jet-flame, RANS of non-premixed jet-flame J. of Turbulence, 5(4), pp. 1-36.
44. L. Vervisch, B. Labégorre, J. Réveillon (2004) Hydrogen-sulphur oxy-flame analysis and single-step flame tabulated chemistry, Fuel, 83(4-5), pp. 605-614.
45. J. Boulanger, L. Vervisch, J. Réveillon, S. Ghosal (2003) Effects of heat release in laminar diffusion flames lifted on round jets, Combust. Flame, 134(4), pp. 355-368.

46. L. Blin, A. Hadjadj, L. Vervisch (2003) Large Eddy Simulation of turbulent flows in reversing systems, J. of Turbulence, 4(1), pp. 1-19.
47. O. Gicquel, L. Vervisch, G. Joncquet, B. Labegorre, N. Darabiha (2003) Combustion of residual steel gases: Laminar flame analysis and turbulent flamelet modeling, Fuel, 82(8), pp. 983 - 991.
48. P. Domingo, L. Vervisch, K.N.C. Bray (2002) Partially premixed flamelets in LES of nonpremixed turbulent combustion, Combust. Theory and Modelling, 6(4), pp. 529-551.
49. J. Boulanger, L. Vervisch (2002) Diffusion edge-flame: Approximation of the flame tip Damköhler number, Combust. Flame, 130(1/2), pp. 1-14.
50. D. Veynante, L. Vervisch (2002) Turbulent Combustion Modeling, Prog. Energ. Sci., 285(3), pp. 193-266.
51. V. Favier, L. Vervisch (2001) Edge flames and partially premixed combustion in diffusion flame quenching. Combust. Flame. 125 (1/2), pp. 788-803.
52. S. Ghosal, L. Vervisch (2001) Stability diagram for lift-off and blowout of a round jet laminar diffusion flame. Combust. Flame., 124(4), pp. 646-655, 2001.
53. L. Vervisch (2001) Book review, N. Peters, "Turbulent Combustion", Cambridge University Press, Cambridge, UK, 2000, 304 pp. Combust. Flame, 125(3), pp 1222-1223.
54. S. Ghosal, L. Vervisch (2000) Theoretical and numerical study of a symmetrical triple flame using the parabolic flame path approximation, J. Fluid Mech., 415, pp. 227-260.
55. J. Reveillon, L. Vervisch (2000) Accounting for spray vaporization in non-premixed turbulent combustion modeling: A Single Droplet Model (SDM), Combust. Flame, 121(1/2), pp. 75-90.
56. L. Vervisch, D. Veynante D. (2000) Interlinks between approaches for modeling turbulent flames, Proc. Combust. Inst. Vol 28, pp. 175-183.
57. L. Vervisch (2000) Using numerics to help understand nonpremixed turbulent flames. Proc. Combust. Inst. Vol 28, pp. 11-24.
58. L. Vervisch, T. Poinot (1998) Direct numerical simulation of non-premixed turbulent combustion, Annu. Rev. Fluid Mech., 30, pp. 655-92.
59. J. Réveillon, L. Vervisch (1998) Subgrid-Scale Turbulent Micromixing: Dynamic Approach, AIAA Journal. 36 (3), pp. 336-341.

60. V. Favier, L. Vervisch (1998) Investigating the effects of Edge-flames in liftoff in non-premixed turbulent combustion. Proc. Combust. Inst., Vol. 26, pp. 1239-1245.
61. L. Vervisch, J. Réveillon (1996) Dynamics of iso-concentration surfaces in weak shock turbulent mixing interaction, AIAA Journal 34 (12), pp. 2539-2544.
62. J. Réveillon, L. Vervisch (1996) Response of the dynamic model to heat release induced effects, Phys. of Fluids 8 (8), pp. 2248-2250.
63. P. Domingo, L. Vervisch (1996) Triple flames and partially premixed combustion in autoignition of nonpremixed turbulent mixtures, Proc. Combust. Inst., Vol. 26, pp. 233-240.
64. L. Vervisch, J. Réveillon, L. Guichard (1996) Recent developments in turbulent combustion modeling, Journal Européen des Eléments Finis, 5 (2), pp. 161-196.
65. G. R. Ruetsch, L. Vervisch, A. Liñán (1995) Effects of heat release on triple flames, Phys. Fluids 7 (6), pp. 1447-1454.
66. S. Mahalingam, J.H. Chen, L. Vervisch (1995) Finite-rate chemistry and transient effects in direct numerical simulations of turbulent non-premixed flames, Combust. Flame 102 (3), pp. 285-297.
67. L. Vervisch, E. Bidaux, K.N.C. Bray, W. Kollmann (1995) Surface density function in premixed turbulent combustion modeling, similarities between probability density function and flame surface approaches, Phys. Fluids 7 (10), pp. 2496-2503.
68. L. Guichard, L. Vervisch, P. Domingo (1995) Two-dimensional weak-shock vortex interaction in a mixing zone, AIAA Journal 33 (10), pp. 2539-2544.

## Invited keynotes at international conferences

1. Vervisch L. (2012) Combustion, flames and burner design: Challenges and computing tools Invited keynote lecture at COMBURA'12, Combustion Research and Application, Maastricht, The Netherlands 3-4 Oct.
2. Vervisch L. (2012) Challenges and progress in turbulent combustion modeling-Invited keynote lecture at 7th International Symposium on Turbulence, Heat and Mass Transfer, THMT, Palermo, Sicily, Italy 24-27 Sept.
3. Vervisch L., Moureau V., Domingo P. (2010) Turbulent combustion modeling: new approaches for highly refined simulations Invited keynote lecture at V European Conference on Computational Fluid Dynamics ECCOMAS CFD 2010 Lisbon, Portugal, 14-17 June.

4. Vervisch, L. (2009) Scalar scaling in LES of turbulent combustion, Invited keynote lecture at COCCFEA International Workshop on Combustion Simulation and Modelling, Imperial College London, 17-18 Sept., London, UK.
5. Vervisch, L., Moureau, V., Domingo, P., Lodato, G., Veynante, D., (2009) Scalar fields subgrid scale energy in Large-Eddy Simulation of turbulent flames: Mesh quality criterion. Invited introductory lecture at LESTAC09, Large-Eddy Simulation in Turbulence, Aeroacoustic and Combustion, Aug. 26-28, Marseille, France.
6. Vervisch, L., Domingo, P. (2008) Large-Eddy Simulation of turbulent combustion, comparing scalar variances with measurements, Invited keynote lecture at DNS and LES of Reactive Flows, Oct 22-24, Maastricht, Netherlands.
7. Vervisch, L., Domingo, P., Subramanian, V., Bonomeau, G., (2008) Chemistry in Large-Eddy Simulation of turbulent flame, Invited keynote lecture at The Combustion Institute, 20th Journées d'Études of the Belgian Section, May 6-8, Gent, Belgium.
8. Vervisch, L., Domingo, P., (2008), Large-Eddy Simulation of turbulent flames, Invited keynote lecture at LES in Science and Technology, COST P20 Conference, 21-22 April, Poznan, Poland.
9. Vervisch, L., Lodato, G., Domingo, P. (2007), Reliability of Large-Eddy Simulation of turbulent flames, Invited keynote lecture at Quality and Reliability of Large-Eddy Simulation, 24-26 October, Leuven, Belgium.
10. Vervisch, L., Domingo, P. (2005) DNS and LES of turbulent premixed combustion: A FSD-PDF SGS closure, Invited plenary at DLES6, Direct and Large Eddy Simulation, ERCOFTAC, Poitiers, Sept. 12-14, France.
11. Vervisch, L., Domingo, P. (2005) DNS and LES of Turbulent Combustion, Invited plenary at Computational Fluid Dynamics in Chemical Reaction Engineering IV, Barga, June 19-24, Italy.
12. Vervisch, L. (2005), Quality assessment of DNS of reacting flows, Invited paper at the First Workshop on Quality Assessment of Unsteady Methods for Turbulent Combustion Prediction and Validation, Darmstadt - Seeheim, June 16-17, Germany.
13. Vervisch, L. (2004), Linking DNS, LES, RANS and experiments, Invited paper at the 7th Workshop on Turbulent Nonpremixed Flame, Chicago, 22-24 July, USA.
14. Vervisch, L. (2004), LES of turbulent combustion systems in the light of combustion theory, experiments and DNS, Invited paper at the International Workshop on

- Unsteady combustion, Transport Phenomena and Chemical Reaction in Technical Systems, Karlsruhe University, 8-9 July, Germany.
15. Vervisch, L., Domingo, P., Hauguel, R., (2003), Turbulent combustion in the light of direct and large eddy simulation, Invited plenary at Turbulent Shear Flow Phenomena-III, Sendai, 25-27 June, Japan.
  16. Vervisch, L., Hauguel, R., Domingo, P., (2003), Direct Numerical Simulation (DNS) of a premixed turbulent V-Flame, 39th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, Invited paper at "Future of Combustion Simulation Panel Session", Huntsville, 20-23 July 2003, USA.
  17. Vervisch, L., Domingo, L. (2002) Challenges in partially premixed turbulent combustion modeling, Invited plenary at 2002 GAMM Conference (Gesellschaft für Angewandte Mathematik und Mechanik) in Augsburg, 25-28 March, Germany.
  18. Vervisch, L., Domingo, P. (2001) Large Eddy Simulation of partially premixed turbulent combustion. Invited plenary at Symposium on turbulent mixing and combustion. IUTAM. Kingston, June 3-6, Canada.
  19. Vervisch, L. (2001) Challenges in turbulent combustion modeling. Invited plenary at 2001 Joint International Combustion Symposium, Kauai, Sept. 10-12, USA.
  20. Vervisch, L., (2000) Using numerics to help understand nonpremixed turbulent flames. Invited Topical Review at Twenty-Eighth Symposium (International) on combustion, Eindhoven, UK.
  21. Vervisch, L. (1999) DNS and LES of non-premixed turbulent combustion, Invited paper at AIChE Annual Meeting, Oct. 31 - Nov. 5, Dallas, TX, USA.
  22. Vervisch, L. (1999) Numerical models for non-premixed turbulent combustion, Invited plenary at 17th International Colloquium on the Dynamics of Explosions and Reactive Systems, July 25-30, Heidelberg, Germany.
  23. Vervisch, L. (1999) DNS to help understanding of non-premixed turbulent flames, Invited plenary at Second AFOSR International Conference on DNS and LES, New Brunswick, N.J., June 7-9, USA.
  24. Vervisch, L. (1995) DNS for analysis of ignition of non premixed mixtures, Invited paper at The combustion institute, Sezione Italiana, Naples, July 28, Italy.

## Book chapters

1. Merlin, C., Domingo, P., Vervisch L. (2011) Immersed Boundaries in Large-Eddy Simulation of a transonic cavity flow, Direct and Large-Eddy Simulation-VIII, H. Kuerten, B. Geurts, V. Armenio, J. Frhlich (Eds), 454 pages, pp. 119-124. ISBN-978-94-007-2481-5
2. Vervisch, L., Moureau V., Domingo P., Veynante D. (2011) Flame surface density and field equation, Turbulent Premixed Flames, N. Swaminathan and K.N.C. Bray (Eds), pp. 60-74 Cambridge University Press, ISBN 978-0-521-76961-7.
3. Vervisch, L., Domingo P., Lodato, P., Veynante D., (2011) Scalar sub-grid energy in Large-Eddy Simulation of turbulent flames: mesh quality criterion. Quality and Reliability of Large-Eddy Simulations, Maria Vittoria Salvetti, Bernard J. Geurts, Johan Meyers and P. Sagaut (Eds), pp. 201-210 Springer Netherlands, ISBN 978-94-007-0230-1.
4. Subramanian, V., Domingo, P., Vervisch, L., (2008) Turbulent flame spreading mechanisms after spark ignition. in LES and DNS of ignition process and complex structure flames with local extinction, A. Boguslawski, C. Lacor, B. Geurts (Eds), 158 pages, pp. 68-89, American Institute of Physics, ISBN 978-0-7354-0726-8
5. Vervisch, L., Lodato, G., Domingo, P. (2008), Reliability of Large-Eddy Simulation of Nonpremixed Turbulent Flames: Scalar Dissipation Rate Modeling and 3D-Boundary Conditions. Quality and Reliability of Large-Eddy Simulations, Johan Meyers, Bernard J. Geurts and P. Sagaut (Eds), pp. 227-237, Springer Netherlands, ISBN-978-1-4020-8577-2.
6. Vervisch, L., Domingo, P. (2006), Large Eddy simulation of premixed turbulent combustion: FSD-PDF modeling. Direct and Large-Eddy Simulation-VI, Eric Lamballais, Rainer Friedrich, Bernard J. Geurts and Olivier Mtais (Eds), ISBN-10 1-4020-4090.
7. Hilbert, R., Thevenin, D., Vervisch, L. (2001) Partially-premixed combustion during auto-ignition of a turbulent nonpremixed flame. Direct and Large-Eddy Simulation-IV, Bernard J. Geurts, Rainer Friedrich and Olivier Mtais (Eds), ISBN1-4020-0177-0, November 2001
8. Vervisch, L., Domingo P., LES of partially premixed combustion, in Fluids Mechanics and Its Applications: Turbulent Mixing and Combustion, Chapter 19, pp. 235–250. A. Pollard and S. Candel (Eds.), Kluwer, ISBN 1-4020-0747-7, 2000.
9. Boulanger, J., Vervisch. L., Diffusion edge-flame quenching, in Fluids Mechanics and Its Applications: Turbulent Mixing and Combustion, Chapter 13, pp. 161-168 A. Pollard and S. Candel (Eds.), Kluwer, ISBN 1-4020-0747-7, 2000.

10. Bensler, H. P., Buehren F. B., Vervisch, L., 3-D CFD Analysis of the Combustion Process in a DI Diesel Engine using a Flamelet Model, in Multi-Dimensional Engine Modeling (SAE), ISBN 0-7680-0562-0, 2000. (Selected from SAE 2000 World Congree, March 2000, Detroit, MI, USA, Session: Multi-Dimensional Engine Modelling Part C).
11. Herrmann, M., Chen, M., Binninger, B., Peters, N., Favier, V., Réveillon, R., Vervisch, L. (2001) Modeling partially premixed turbulent combustion. in Numerical Flow Simulation II, Notes on Numerical Fluid Mechanics, Vol. 75, pp. 161 – 180, E. H. Hirschel (ed.), ISBN 3-540-41608-0. Springer Verlag.
12. Vervisch, L. (1999) DNS to help understanding of non-premixed turbulent flames, Second AFOSR International Conference on DNS and LES, June 7-9. New Brunswick NJ., Kluwer Academic Publishers, Recent Advances in DNS and LES, pages. 49-59, ISBN 0-7923-6004-4, 1999.
13. Hauguel, R., Reveillon, J, Vervisch, L. (1999) DNS and modeling of spray turbulent combustion, Second AFOSR International Conference on DNS and LES, June 7-9, New Brunswick NJ., Kluwer Academic Publishers, Recent Advances in DNS and LES, pages. 167-177, ISBN 0-7923-6004-4, 1999.
14. Favier, V., Vervisch, L., Herrmann, M., Terhoeven, P., Binninger, B., Peters, N. (1998) Numerical Simulation of Combustion in Partially Premixed Turbulent Flows, Numerical Flow Simulation I, E. H. Hirschel (ed.), Vieweg Verlag, pp. 203-221.
15. Domingo, P., Vervisch, L. (1997) Autoignition of turbulent nonpremixed mixtures, partially premixed combustion, in “Direct and Large Eddy Simulation II”, (Eds J.P. Chollet, P. R. Voke, L. Kleiser) Kluwer Academic Publishers, ISBN 0-7923-4687-4, pp. 331-341.
16. Réveillon, J., Vervisch, L. (1997) Dynamic subgrid PDF modeling for nonpremixed turbulent combustion, in “Direct and Large Eddy Simulation II”, (Eds J.P. Chollet, P. R. Voke, L. Kleiser) Kluwer Academic Publishers, ISBN 0-7923-4687-4, pp. 311-320.
17. Vervisch, L., Réveillon, J., Melen, S., Vandromme, D. (1994) Turbulent combustion with complex chemistry on SIMD architecture, in “Notes on Numerical Fluid Mechanics”, vol.50, (Eds S. Wagner) Vieweg Verlag, ISBN 3-531-07650-X, pp. 188-197.
18. Borghi, R., Vervisch, L., Garréton D. (1991) The calculation of local fluctuations in non-premixed turbulent flames, (Eds Carvalho M.G., Lockwood, F., Taine, J.), Springer Verlag, pp. 83-113.

## Center for Turbulence Research - Stanford reports

1. Ribert, G., Domingo, P., Vervisch, L., (2013) Hybrid transported-tabulated strategy to downsize detailed chemistry for Large Eddy Simulation in “Studying turbulence by using numerical simulation databases XIV”, (Eds Center for Turbulence Research) Stanford, pp. 429-438.
2. Moureau, V., Domingo, P., Vervisch, L., Veynante, D., (2011) DNS analysis of a  $Re = 40,000$  swirl burner, In “Studying turbulence by using numerical simulation databases XIII”, (Eds Center for Turbulence Research) Stanford, pp. 289-298.
3. Lodato, G., Domingo, P., Vervisch, L., Veynante, D., (2009) Scalar variances: LES against measurements and mesh optimization criterion; scalar gradient: a three-dimensional estimation from planar measurements using DNS. In “Studying turbulence by using numerical simulation databases XII”, (Eds Center for Turbulence Research) Stanford, pp. 387-398.
4. Vicquelin, R., Fiorina, B., Darabiha, N., Veynante, D., Moureau, V., Vervisch, L. (2009) Coupling tabulated chemistry with large-eddy simulation of turbulent reactive flows In “Studying turbulence by using numerical simulation databases XII”, (Eds Center for Turbulence Research) Stanford, pp. 237-249.
5. Domingo, P., Vervisch, L., Veynante, D., (2006) Auto-ignition and flame propagation effects in LES of burned gases diluted turbulent combustion. In “Studying turbulence by using numerical simulation databases XI”, (Eds Center for Turbulence Research) Stanford, pp. 337-348.
6. Naudin, A., Fiorina, B., Paubel, X., Veynante, D., Vervisch, L., (2006) Self-similar behavior of chemistry tabulation in laminar and turbulent multi-fuel injection combustion systems. In “Studying turbulence by using numerical simulation databases XI”, (Eds Center for Turbulence Research) Stanford, pp. 349-360.
7. Vervisch, L., Trouve, A., (1998), LES modeling for lifted turbulent jet flames In “Studying turbulence by using numerical simulation databases VII”, (Eds Center for Turbulence Research) Stanford, pp. 83-100.
8. Reveillon, J., Vervisch, L., (1998), Accounting for spray vaporization in turbulent combustion modeling, In “Studying turbulence by using numerical simulation databases VII”, (Eds Center for Turbulence Research) Stanford, pp. 25-38.
9. Vervisch, L., Kollmann, W., Bray, K.N.C., Mantel, T. (1995) Pdf modelling for premixed turbulent combustion based on the properties of iso-concentration surfaces, in “Studying turbulence by using numerical simulation databases V”, (Eds Center for Turbulence Research) Stanford, pp 125-150.

10. Veynante, D., Vervisch, L., Poinso, T., Liñán, A., Ruetsch, G. (1995) Triple flame structure and diffusion flame stabilization, in “Studying turbulence using numerical databases - V”, (Eds Center for Turbulence Research) Stanford, pp 55-73.
11. Chen, J.H., Mahalingam, S., Puri, I., Vervisch, L. (1992) Effect of finite rate chemistry and unequal Schmidt numbers in turbulent non-premixed flames, in “Studying turbulence using numerical databases - IV”, (Eds Center for Turbulence Research) Stanford, pp 367-387.
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## Papers at international conferences with proceedings

1. G. Lodier, P. Domingo, L. Vervisch (2013) Analyzing self-ignition in rapidly compressed turbulence, International Symposium on Turbulence and Shear Flow Phenomena (TSFP-8), Poitiers, 28 - 30 August.
2. G. Ribert, P. Domingo, L. Vervisch (2013) Hybrid Transported-Tabulated Strategy to Downsize Detailed Chemistry for Large Eddy Simulation, European Combustion Meeting, Lund University, 25-28 June.
3. R. Amin, Z. Pouransari, L. Vervisch, A. Johansson (2013) An explicit algebraic subgrid-scale scalar variance model European Turbulence Conference, ENS Lyon, 14, 1-4 Sept..
4. B. Farcy, A. Abou-Taouk, L. Vervisch, P. Domingo, N. Perret (2013) Numerical modelling of selective non catalytic reduction DeNOx Process, European Combustion Meeting, Lund University, 25-28 June.
5. G. Ribert, P. Domingo, L. Vervisch (2013) An hybrid transported- tabulated strategy to downsize detailed chemistry for Direct Numerical Simulation, AIAA-2013-0291, 51st AIAA Aerospace Sciences Meeting, Grapevine, Texas, USA, January 7-10.

6. G. Ribert, P. Domingo, L. Vervisch (2013) Hybrid Transported-Tabulated Strategy to Downsize Detailed Chemistry for Large Eddy Simulation, Fourteenth International Conference on Numerical Combustion, San Antonio, Texas, USA, April 8-10.
7. S. Nambully, P. Domingo, V. Moureau, L. Vervisch (2012) Modeling differential diffusion in large-eddy simulation of nonpremixed flames. 7th International Symposium on Turbulence, Heat and Mass Transfer, THMT, Palermo, Sicily, Italy 24-27 Sept.
8. Z. Pouranzari, L. Vervisch, A. V. Johansson (2012) Analysis of combustion modelling tools using DNS of a non-premixed turbulent wall-jet. 7th International Symposium on Turbulence, Heat and Mass Transfer, THMT, Palermo, Sicily, Italy 24-27 Sept.
9. S. Nambully, P. Domingo, V. Moureau, L. Vervisch (2012) Modeling differential diffusion in Large Eddy Simulation of a bluff body stabilized premixed weakly-turbulent flame. Eleventh International Workshop on Measurement and Computation of Turbulent Non-Premixed Flames, Darmstadt, 26-28 July.
10. Z. Pouranzari, L. Vervisch, A. V. Johansson (2012) A priori Assessment of SGS models for non-premixed turbulent flames. Eleventh International Workshop on Measurement and Computation of Turbulent Non-Premixed Flames, Darmstadt, 26-28 July.
11. F. Pecquery, G. Lartigue, V. Moureau, L. Vervisch (2012) Development of a numerical model to predict emissions of nitrogen oxides in turbulent flames, 9th International ERCOFTAC Symposium on Engineering Turbulence Modeling and Measurements, ETMM9, June 6-8, Tessaaloniki, Greece.
12. G. Lodier, C. Merlin, P. Domingo, L. Vervisch, F. Ravet (2012) Self-ignition scenarios after rapid compression of a turbulent mixture weakly-stratified in temperature, 9th International ERCOFTAC Symposium on Engineering Turbulence Modeling and Measurements, ETMM9, June 6-8, Tessaaloniki, Greece.
13. S. Nambully, P. Domingo, V. Moureau, L. Vervisch (2012) Modeling differential diffusion in Large-Eddy Simulation of a bluff body stabilized premixed weakly-turbulent flame, 7th International Symposium on Turbulence, Heat and Mass Transfer, THMT, Palermo, Sicily, Italy.
14. Z. Pouransari, A. Rasam, L. Vervisch, A. V. Johansson (2012) A priori assessment of subgrid-scale scalar dissipation in non-premixed turbulent wall-jet flames, European Fluid Mechanics Conference 9, EFMC9, Sept 9-13, University of Rome, Tor vergata, Italy.

15. P. D. Nguyen, V. Moureau, L. Vervisch, N. Perret (2012) A massively parallel solution strategy for efficient thermal radiation simulation, Computational Thermal Radiation in Participating Media IV, Eurotherm, April 18-20, Nancy, France.
16. V. Moureau, P. Domingo, L. Vervisch (2011) DNS and LES analysis of a premixed swirl burner, 13th International Conference on Numerical Combustion, 27-29 April, Corfu, Greece.
17. C. Merlin, P. Domingo, L. Vervisch, J. Burguburu, G. Cabot, B. Renou (2011) Large Eddy Simulation and experimental study of a Trapped Vortex Combustor, 13th International Conference on Numerical Combustion, 27-29 April, Corfu, Greece.
18. G. Godel, S. Nambully, P. Domingo, V. Moureau, L. Vervisch (2011) Uncertainty analysis in NO<sub>x</sub> prediction: Impact of SGS scalar variance estimation in LES using presumed PDF, European Combustion Meeting, Cardiff University, 29 June - 1 July 2011.
19. V. Moureau, P. Domingo, L. Vervisch, FLF-PDF (2011) a Filtered Laminar Flame (FLF) presumed PDF model for Large-Eddy Simulation of premixed combustion, European Combustion Meeting, Cardiff University, 29 June - 1 July.
20. G. Lodier, L. Vervisch, V. Moureau, P. Domingo (2011) Composition-space premixed flamelet solution with differential diffusion for in-situ flamelet-generated manifolds, European Combustion Meeting 2011, Cardiff University, 29 June - 1 July.
21. C. Merlin, P. Domingo, L. Vervisch, J. Burguburu, G. Cabot, B. Renou (2011) Large Eddy Simulation and experimental study of a Trapped Vortex Combustor, 23rd ICDEERS Conference, University of California, Irvine – July 24-29.
22. G. Ribert, G. Lodier, P. Domingo, G. Lartigue, V. Moureau, L. Vervisch, (2010) Advanced detailed chemistry tabulation for engine simulations: Application to a rapid compression machine, Int. Conference and Exhibition Diesel Engines, May 26-27, Rouen, France.
23. Merlin, C., P. Domingo, L. Vervisch, (2010) Immersed Boundaries in Large-Eddy Simulation of a transonic cavity flow, Direct and Large-Eddy Simulation 8, July 7-9, Eindhoven, The Netherlands.
24. Moureau V., P. Domingo, L. Vervisch, (2010) Studying swirling flames using highly resolved simulations of an industrial premixed burner, ETMM8: 8th International ERCOFTAC Symposium on Engineering Turbulence Modelling and Measurements 9 - 11 June 2010, Marseille, France.

25. Enjalbert N., P. Domingo, L. Vervisch, (2010) Flow-controlled detailed chemistry tabulation for Large-Eddy Simulation of non-premixed turbulent combustion, ETMM8: 8th International ERCOFTAC Symposium on Engineering Turbulence Modelling and Measurements 9 - 11 June 2010, Marseille, France.
26. Merlin, C., P. Domingo, L. Vervisch, (2010) Immerse boundaries in Large-Eddy Simulation of fully compressible flows: Application to transonic cavity flow in perspective of flame stabilization behind obstacles, ETMM8: 8th International ERCOFTAC Symposium on Engineering Turbulence Modelling and Measurements 9 - 11 June 2010, Marseille, France.
27. Enjalbert N., P. Domingo, L. Vervisch, (2010) A flow-controlled chemistry tabulation method for LES of turbulent combustion with detailed chemistry, V European Conference on Computational Fluid Dynamics ECCOMAS CFD 2010 Lisbon, Portugal,14-17 June.
28. Merlin C., P. Domingo, L. Vervisch, (2010) An Immersed Boundary Method for Large-Eddy Simulation of fully compressible flows: Application to a transonic cavity flow, V European Conference on Computational Fluid Dynamics ECCOMAS CFD 2010 Lisbon, Portugal,14-17 June.
29. Subramanian V., P. Domingo, L. Vervisch, (2010) Large-Eddy Simulation of forced ignition in highly strained bluff-body burner, V European Conference on Computational Fluid Dynamics ECCOMAS CFD 2010 Lisbon, Portugal,14-17 June.
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32. Colombet D., Nguyen P.-D., Vervisch, L. Perret N. (2009), Spontaneous decomposition of N<sub>2</sub>O/Ar and N<sub>2</sub>O/Air mixture: Analysis of chemical kinetics, Récents Progrès en Génie des Procédés, Numéro 98-2009, 2-910239-72-1, Paris, France. Proceedings du XIIème congrès de la SFGP, 14-16 Octobre, Marseille.
33. Lecocq, G., Richard, S., Colin, O., Vervisch, L. (2009), Gradient and counter-gradient modelling in premixed theoretical study and application to the LES of a lean premixed turbulent swirl-burner, 6th Mediterranean Combustion Symposium, June 7-11, Porticcio - Ajaccio, Corsica, France.

34. Wang, K., Ribert, G., Domingo, P., Vervisch L. (2009), Self-similar behavior of burned gases vitiated premixed flamelets including heat-loss, 4th European Combustion Meeting, April 14-17, Vienna University of Technology, Austria.
35. Nguyen P.-D., Subramanian, V., Domingo, P., Vervisch L. (2009), Multidimensional Flamelet Manifolds for hybrid combustion regimes, 4th European Combustion Meeting, April 14-17, Vienna University of Technology, Austria.
36. Enjalbert, N., Domingo, P., Vervisch L. (2009), Flow-Controlled Chemistry Tabulation (FCCT) for Large-Eddy Simulation of turbulent combustion with detailed chemistry, 4th European Combustion Meeting, April 14-17, Vienna University of Technology, Austria.
37. Subramanian, V, Domingo, P., Vervisch, L. (2008), Large-Eddy Simulation of forced ignition of an annular bluff-body burner, DNS and LES of Reactive Flows, Oct 22-24, Maastricht, Netherlands.
38. Bonomeau, G., Domingo, P., Vervisch, L., (2008), Large-Eddy Simulation of turbulent fuel jet injection: Toward mixing control from monitoring the injection sequence, 7th Symposium on Engineering Turbulence Modelling and Measurements, 4-6 June, Cyprus.
39. Guido, L., Domingo, P., Vervisch, L., (2008), Fully compressible LES of wall-jet turbulent mixing at high Reynolds number, 7th Symposium on Engineering Turbulence Modelling and Measurements, 4-6 June, Cyprus.
40. Subramanian, V., Domingo, P., L.Vervisch, (2008) Tabulation of detailed chemistry for LES predictions of non-premixed burners ignition maps Twelfth International Conference on Numerical Combustion, SIAM, March 31, April 2, Monterey, USA.
41. Naudin, A., Vervisch, L., Domingo, P., (2008) Large-Eddy Simulation of methane-Air premixed swirl burner using Tabulated chemistry, Twelfth International Conference on Numerical Combustion, SIAM, March 31, April 2, Monterey, USA.
42. Godel, G., Domingo, P., Vervisch, L. (2008) A Strategy for tabulating NO<sub>x</sub> from detailed chemistry and coupling with flow solver, Twelfth International Conference on Numerical Combustion, SIAM, March 31, April 2, Monterey, USA.
43. Domingo, P., Vervisch, L., Veynante, D., (2007), Large-Eddy Simulation of diluted combustion, 21st International Colloquium on the Dynamics of Explosions and Reactive Systems, 23-27 July, Poitiers, France.

44. Veynante, D., Fiorina, B., Domingo, P., Vervisch, L., (2007), Using self-similar properties of turbulent premixed flames to downsize chemical tables in high performance numerical simulation, 21st International Colloquium on the Dynamics of Explosions and Reactive Systems, 23-27 July, Poitiers, France.
45. Paubel, X., Cessou, A., Godard, G., Honoré D., Vervisch, L., Tsiava, R., (2007) Piloted non-premixed oxycombustion of low calorific fuels, European Combustion Meeting ECM2007, 11-13 April, Chania, Greece.
46. Subramanian, G., Vervisch, L., Ravet, F. (2007) New developments in turbulent combustion modeling for engine design: ECFM-CLEH combustion submodel, SAE 2007-01-0154, Detroit, USA.
47. Subramanian, G., Pires Da Cruz, A., Colin, O., Vervisch, L. (2007) Modeling engine turbulent auto-ignition using tabulated detailed chemistry, SAE 2007-01-0150, Detroit, USA.
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49. Naudin A., Vervisch L., Domingo P. (2007) Large-Eddy Simulation of swirling flames using tabulated detailed chemistry, 11th European Turbulence Conference, 25-28 June, Porto, Portugal. Springer Proceedings in Physics 117, Advances in Turbulence XI, ISBN 978-3-540-72603 Springer Berlin Heidelberg New York, pp. 413-415, J. M. L. M. Palma and A. S. Lopes (Eds)
50. Lodato, G., Domingo, P., Vervisch, L. (2007) Quality assessment of inlet boundary conditions and domain size for fully compressible LES of wall-jet turbulent mixing, 5th Int. Symposium on Turbulence and Shear Flow Phenomena, August 27-29, Munich, Germany.
51. Vervisch, L., Naudin, A., Payet, S., Domingo, P., Labegorre, B. (2006) Studying flame dilution by burnt gases using numerical combustion, European Conference on Computational Fluid Dynamics, Sept. 5-8, Egmond aan Zee, Netherlands.
52. Domingo, P. Vervisch L. (2006) DNS and LES of flame propagating in rotating flows, 11th International Conference on Numerical Combustion, April 23-26, Granada, Spain.
53. A. Naudin, L. Vervisch, P. Domingo, (2006) Coupling fully compressible LES with Flame Tabulated Chemistry, 11th International Conference on Numerical Combustion, April 23-26, Granada, Spain.

54. G. Subramanian, Colin, O., Pires da cruz, A, Vervisch, L., Bruneaux, G. (2005) Modeling turbulent mixing of an evaporating spray, 20th International Colloquium on The Dynamics of Explosions and Reactive Systems. July 31 - August 5, Montreal, Canada.
55. Domingo, P., Vervisch, L., Payet, S., Hauguel R. (2005) Analysis of scalar dissipation rate and turbulent transport in LES of premixed turbulent combustion, Turbulent Shear Flow Phenomena-IV, Williamsburg, Virginia June 27-29, 2005.
56. Paubel, X., Cessou, A., Honoré, D., Vervisch, L., Zamuner, B., Labégorre, B., Tsiava, R. (2005) Oxycombustion of low energetic off-gas mixtures, European Combustion Meeting (ECM2003), Louvain-la-Neuve, April 3-6.
57. Payet, S., Hauguel, R., Domingo, P., Vervisch, L. (2005) Subgrid scale variance and turbulent transport in LES of premixed turbulent combustion, European Combustion Meeting (ECM2005), Louvain-la-Neuve, April 3-6.
58. Subramanian, G., Pirez Da Cruz, A., Vervisch, L., Bournaceur R. (2005), Impact of CO and H<sub>2</sub> addition on the auto-ignition delay of mixtures dedicated to Homogeneous Charge Compression Ignition (HCCI) engines, European Combustion Meeting (ECM2003), Louvain-la-Neuve, April 3-6.
59. Domingo, P., Hauguel R., Payet, S., Vervisch, L. (2004) DNS of premixed turbulent V-Flame : RANS and LES analysis of scalar dissipation rate and turbulent transport. Tenth International Conference on Numerical Combustion, Turbulence I, May 9-12, Sedona, USA.
60. Fiorina, B., Gicquel O., Vervisch, L., Carpentier S., Darabiha, N., (2004) Turbulent combustion modeling of partially-premixed devices using tabulated chemistry and presumed PDF. Tenth International Conference on Numerical Combustion, Turbulence I, May 9-12, Sedona, USA.
61. Rullaud, M., Vervisch, L., (2004) Modeling nonpremixed turbulent jet-flame using presumed conditional moments and flame tabulated chemistry. Tenth International Conference on Numerical Combustion, Turbulence IV, May 9-12, Sedona, USA.
62. Vervisch, L., Labégorre, B, (2003) Hydrogen-sulfur oxy-flame analysis, European Combustion Meeting (ECM2003), Orleans, October 25-28.
63. Réveillon, J., Domingo, P., Vervisch, (2003) L. Structure of flames stabilized on evaporating sprays, European Combustion Meeting (ECM2003), Orleans, October 25-28.

64. Hauguel, R., Vervisch, L., Domingo, P., (2003) Direct numerical simulation of a premixed turbulent V-flame, European Combustion Meeting (ECM2003), Orleans, October 25-28.
65. Fiorina, B., Carpentier, S., Gicquel, O., Vervisch, L., Darabiha, N., Approximating the chemical structure of diffusion and partially premixed laminar counter-flow flames using FPI (Flame prolongation of ILDM), 19th International Colloquium on The Dynamics of Explosions and Reactive Systems. July 27 - August 1, 2003, Kanagawa, Japan
66. Luo, K. H., Vervisch, L., Domingo, P. (2003) Fluid dynamics effects on lifted-flames, Fourth Int. Conf. on Fluid Mechanics, July 28-31, Dalian, China.
67. Hauguel, R., Vervisch, L., Domingo, P. DNS of premixed turbulent V-flame (2003) coupling spectral and finite difference methods, EUROMECH 446 Colloquium, High-order methods for the numerical simulation of vortical and turbulent flows, Seeheim, Germany, March 10-11.
68. Rullaud, M., Vervisch, L. (2002), Partially premixed flamelet chemistry tabulation for PDF modeling of nonpremixed turbulent combustion, 2002 GAMM conference in Augsburg, 25-28 March, Germany.
69. Domingo, P., Reveillon, J., Vervisch, L. (2002) DNS analysis of a generalized progress variable for LES of partially premixed turbulent combustion, Ninth International Conference on Numerical Combustion, April 7-10, Sorrento, ITALY.
70. Rullaud, M., Vervisch, L. (2002) Partially premixed flame tabulated chemistry for RANS modeling of nonpremixed turbulent combustion, Ninth International Conference on Numerical Combustion, April 7-10, Sorrento, ITALY.
71. Boulanger, J., Vervisch, L. (2002) Damkohler number at the tip of a diffusion edge-flame, Ninth International Conference on Numerical Combustion, April 7-10, Sorrento, ITALY.
72. Réveillon, J., Vervisch, L. (2002), Direct numerical simulation of sprays: turbulent mixing and combustion, March 11-13th, Ercoftac Conference on Small Particles in Turbulence. Seville, Spain.
73. Boulanger, J, Ghosal, S., Réveillon, J, Vervisch, L. (2001) Stabilization mechanisms of laminar jet diffusion flame. International Colloquium on The Dynamics of Explosions and Reactive Systems. July 29 - August - 3, Seattle, Washington.
74. Boulanger, J, Vervisch, L. (2001) Effects of transverse heat fluxes in diffusion flamelet quenching. Symposium on turbulent mixing and combustion. Kingston, June 3-6.

75. Reveillon, J, Vervisch, L. (2001) Partially premixed combustion in spray flames. 18th International Colloquium on The Dynamics of Explosions and Reactive Systems. July 29 - August - 3, Seattle, Washington.
76. Domingo, P., Vervisch, L. (2001) Large Eddy Simulation of Lifted Jet diffusion flames, International Colloquium on The Dynamics of Explosions and Reactive Systems. July 29 - August - 3, Seattle, Washington.
77. Boulanger, J, Ghosal, S., Réveillon, J, Vervisch, L. (2001) Impact du dégagement de chaleur sur les flammes laminaire de diffusion déccrochées. XV Congrès Français de Mécanique, Nancy 3-7 Sept.
78. Labegorre, B., Lesieur, C., Salentey, L., Lecanu, M., Domingo, P., Vervisch, L., Sautet, J.-C. (2001) Turbulent combustion in a separated-jets burner, Joint International Symposium, Kauai USA, sept. 10-12.
79. Gicquel, O., Joncquet, G., Labegorre, B, Vervisch, L. (2001) Turbulent combustion modeling of nonpremixed steel gases, Joint International Symposium, Kauai USA, sept. 10-12.
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81. Favier, V., Vervisch, L. (2000) Two-dimensional effects in diffusion flame quenching. GAMM Conference-2000, Göttingen, April 3-6.
82. Favier, V., Vervisch, L. (2000) Edge flame and partially premixed flamelets in nonpremixed combustion. 8Th European Conference on Turbulence, Barcelona, June 27-30, pp. 429–432. Published in Advances in Turbulence VIII, C. Dopazo et al. (Eds), CIMNE, ISBN 84-89925-65-8.
83. Reveillon, J., Vervisch, L. (2000) Partially premixed turbulent combustion in spray. 8Th European Conference on Turbulence, Barcelona, June 27-30, June 27-30, pp. 581–584. Published in Advances in Turbulence VIII, C. Dopazo et al. (Eds), CIMNE, ISBN 84-89925-65-8.
84. Larroya J.-C., François C., Cazalens M., Vervisch, L. (1999), Testing a new monte carlo method for solving pdf equation in turbulent combustion. Fifth International Conference on Technologies and Combustion for a clean Environment, volume I, pages 177-183, 1999.
85. Blin, L., Hadjadj, A., Vervisch, L. (1999) Large eddy simulation of compressible turbulent flows for aeronautical applications, AIAA 99-0787, 37th AIAA Aerospace Sciences Meeting and Exhibit, January 11-14, Reno, NV.

86. Blin, L. Hadjadj, A, Vervisch, L. (1999) Large Eddy Simulation in thrust-reverser, 35<sup>eme</sup> Colloque d'Aérodynamique Appliquée, Lille, 22-24 March.
87. Ghosal, S., Vervisch, L., AEA of Triple Flames: Introducing correction due to compressibility, IMA conference, low Speed Combustion, Minneapolis 27-30 Sept. (1999).
88. Ravet F., Vervisch, L. (1998) "Modeling non-premixed turbulent combustion in aeronautical engines using PDF-Generator", AIAA paper 98-1027, 36th AIAA Aerospace Sciences Meeting and Exhibit, January 12-15, Reno, NV.
89. Réveillon J., Bray K.N.C., Vervisch, L. (1998) DNS study of spray vaporization and turbulent micro-mixing, AIAA paper 98-1028, 36th AIAA Aerospace Sciences Meeting and Exhibit, January 12-15, Reno, NV.
90. Domingo, P., Benazzouz, T., Vervisch, L. (1998) Studying turbulent plasma using direct numerical simulation and probability density function, AIAA paper 98-0982, 36th AIAA Aerospace Sciences Meeting and Exhibit, January 12-15, Reno, NV.
91. Blin, L., Hadjadj, A, Vervisch, L. (1998) Separated turbulent jets modeling for aeronautical applications, ECCOMAS 98, Published by John Wiley & Sons, Ltd.
92. Favier V., Vervisch L. (1998) Edge-flame/vortices interaction and stabilization of non-premixed combustion, 7th International Conference on Numerical Combustion, York 30 March, April 1rst.
93. Ghosal, S., Vervisch, L. (1998) Asymptotic theory of triple-flame accounting for heat release effects, 7th, International Conference on Numerical Combustion, York 30 March, April 1rst.
94. Réveillon, J, Vervisch, L. (1997) Subgrid mixing modeling: a dynamic approach AIAA paper 97-0367, 35th Aerospace Sciences Meeting and Exhibit, Reno NV, Jan. 6-9.
95. Réveillon, J, Vervisch, L. (1996) Dynamics of iso-concentration surfaces in weak shock turbulent mixing interaction, AIAA paper 96-0517, 34th Aerospace Sciences Meeting and Exhibit, Reno NV, Jan. 15-18.
96. Reveillon, J., Vervisch, L. (1995) Dynamic large eddy pdf modelling for turbulent non-premixed combustion, Statistical properties of turbulent gaseous flames. European mechanics society, Euromech colloquium 340, Aug 30 - Sept 1.
97. Guichard, L., Vervisch, L., Domingo, P. (1995), Interaction of a mixing zone with a pressure discontinuity, AIAA paper 95-0877, 33rd Aerospace Sciences Meeting and Exhibit, Reno NV.

98. Réveillon, J., Domingo, P., Vervisch, L. (1995) Non-premixed flame ignition in turbulent flows, triple-flames, Tenth Symposium on Turbulent Shear Flows, University Park, PA, August 14-16.
99. Vervisch, L., Kollmann, W., Bray, K.N.C. (1995) Dynamics of iso-concentration surfaces in turbulent premixed flames, Tenth Symposium on Turbulent Shear Flows, Paper No 22-1, University Park, PA, August 14-16.
100. Vervisch, L., Chen, J.H., Mahalingam S., I. Puri (1993) Numerical study of finite rate chemistry effects and unequal Schmidt numbers in turbulent non-premixed flames, Ninth Symposium on Turbulent Shear Flows, Paper No 25-3, Kyoto, August 16-18.

## Papers at French conferences

1. Vervisch, L., Garréton D. (1991) Prise en compte d'effets cinétiques dans une flamme de diffusion turbulente par l'approche fonction densité de probabiliste, méthode de monte Carlo, Congrès Français de Mécanique, 2-6 Sept.
2. Vervisch, L. (1995) Modélisation des flammes turbulentes prémélangées, similitudes entre les approches probabilistes et la notion de surface de flamme, 12<sup>ème</sup> Congrès Français de Mécanique, Vol. 1, pp. 421-424, Strasbourg 4 - 8 Sept.
3. Réveillon, J., Vervisch, L. (1995) Modèle probabiliste de sous-maille pour la combustion turbulente non-prémélangée, 12<sup>ème</sup> Congrès Français de Mécanique, Vol. 1 pp. 413-416, Strasbourg 4 - 8 Sept.
4. Domingo, P., Réveillon, J., Vervisch, L. (1995) Allumage en milieu non-prémélangée, 12<sup>ème</sup> Congrès Français de Mécanique, Vol. 1 pp. 417-420, Strasbourg 4 - 8 Sept.
5. Moureau, V., Domingo, P., Vervisch, L. (2011) Analyse pour la LES d'une base de données de simulations directes 20<sup>ème</sup> Congrès Français de Mécanique, Besançon, 28 Aout - 12 sept.
6. Enjalbert, N., Domingo, P., Vervisch, L. (2011) Effets d'histoire sur la modélisation du mélange dans le contexte LES 20<sup>ème</sup> Congrès Français de Mécanique, Besançon, 28 Aout - 12 sept.
7. Lodier, G., Domingo, P., Vervisch, L. (2011) Etude de l'initiation et de la propagation de l'auto-inflammation dans un milieu présentant des inhomogénéités de température 20<sup>ème</sup> Congrès Français de Mécanique, Besançon, 28 Aout - 12 sept.

8. Merlin C., Domingo, P., Vervisch, L. (2011) Large Eddy simulation of a trapped Vortex combustor 20<sup>ème</sup> Congrès Français de Mécanique, Besançon, 28 Aout - 12 sept.

## Conferences without proceedings

1. Vervisch, L. (2006) Réalité modèle et théorie de la combustion turbulente appliquée à la production d'énergie, Journées Scientifiques de l'Institut Universitaire de France, 30-31 Mars, Strasbourg.
2. Réveillon, J., Massot, M., Vervisch, L., (2001) Direct numerical simulation of turbulent sprays. In Proceedings of the workshop: Trends in Numerical and Physical Modeling for Industrial Multiphase Flows.
3. Favier, V., Vervisch, L. (1999) Stabilization of non-premixed turbulent combustion, Japanese & French Conference on DNS and LES, Cargese 6-8 Oct.
4. Ghosal, S., Vervisch, L. (1998) Triple flames: the effects of heat release, 51st Annual Meeting of the Division of Fluid Dynamics, American Physical Society, APS-DFG, Nov. 22-24, Philadelphia
5. Ghosal, S., Vervisch, L. (1997) Asymptotic theory of triple-flame, 50st Annual Meeting of the Division of Fluid Dynamics, American Physical Society, APS-DFG, San-Francisco, Nov 3.
6. Vervisch, L., Domingo, P. (1997) Dynamics of edge-flames in non-premixed turbulent combustion, Invited plenary at 4th French-Russian-Italian-Uzbek Workshop on experimentation, numerical methods and modeling, Marseilles, France, June 30-July 4.
7. Vervisch, L. (1996) Shock-turbulent mixing interaction, Invited paper at ECCOMAS Conference, Computational Methods in Applied Sciences 96, Paris, Sept. 9-13.
8. Ruetsch, G., Veynante, D., Vervisch, L., Poinso, T., Liñan, A. (1994) Triple flame structure and diffusion flame stabilization, 47th Annual meeting Fluid Dynamics division of the American Physical Society, New Mexico, Nov.
9. Lebre, Y. Nabarra, M, Vervisch, L., Escaig, Y., Vandromme, D. (1993) Parallel computation in France West Ercoftac bulletin, Sept.
10. Chen, J.H., Mahalingam, S., Puri, I., Vervisch, L. (1992) Structure of turbulent non-premixed flame modeled with one step chemistry, 45th Annual Meeting Fluid

- Dynamics division of the American Physical Society, paper BD1, Tallahassee, Nov. 22-24.
11. Chen, J.H., Mahalingam, S., Puri, I., Vervisch, L. (1992) Structure of turbulent non-premixed flames modelled with two-steps chemistry, 45th Annual meeting Fluid Dynamics division of the American Physical Society, paper BD2, Tallahassee, Nov 22-24.
  12. Borghi, R. Garréton, D., Vandromme, D., Vervisch, L., Violet, P.-L. (1991) Development of an eulerian-lagrangian peul model for modelling the kinetics effects in turbulent reactive flows, Ercoftac, Lausanne, June 1991.

## Lectures with notes

1. Vervisch, L., Veynante, D. (2013) Turbulent Combustion, Von Karman Institute, 13-17 May (Co-director of the courses.) Turbulent Combustion Modeling.
2. Vervisch, L. (2011) Backgrounds and challenges in turbulent combustion modeling & Established and emerging tools for burner design. ERCOFTAC course on Flame stabilisation for Industrial burner 26-27 Sept. GE Global research center, Munich, Germany,
3. Vervisch, L., Veynante, D. (2011) Turbulent Combustion, Von Karman Institute, 21-25 March (Co-director of the courses.) Turbulent Combustion Modeling.
4. Vervisch, L., Veynante, D. (2009) Turbulent Combustion, Von Karman Institute, 25-29 May (Co-director of the courses.) Turbulent Combustion Modeling.
5. L., Vervisch (2008) Modélisation de la Combustion Turbulente, 25-30 Mai, Ecole de Combustion CNRS, Fréjus.
6. Vervisch, L., Veynante, D. (2007) Turbulent Combustion, Von Karman Institute, 4-8 June (Co-director of the courses.) Turbulent Combustion Modeling.
7. Vervisch, L., Veynante, D. (2005) Turbulent Combustion, Von Karman Institute, 7-11 March (Co-director of the courses.) Turbulent Combustion Modeling.
8. Vervisch, L. (2004) Advance LES of turbulent flames, ERCOFTAC, LES of Reacting Flows, Aristotle University of Thessaloniki, 5-11 June.
9. Vervisch, L. (2004) Turbulent combustion modeling in the light of flame theory, experiments and direct numerical simulation, CECOST, KTH, Royal Institute of Technology, Stockholm Sweden, 14-17 June.

10. Vervisch, L., Veynante, D. (2003) Turbulent Combustion, Von Karman Institute, 17-21 March (Co-director of the courses.) Turbulent Combustion Modeling.
11. Vervisch, L., Veynante, D. (2001) Turbulent Combustion, Von Karman Institute, 19-23 March (Co-director of the courses.) Turbulent Combustion Modeling.
12. Vervisch, L., Veynante, D. (1999) Turbulent Combustion, Von Karman Institute, 22-26 March (Co-director of the courses.) Turbulent Combustion Modeling.
13. Vervisch, L., Veynante, D. (1998) Turbulent combustion, Ecole de Combustion CNRS, Oleron, Mai 1998.
14. Vervisch, L. (1997) Studying non-premixed turbulent combustion using direct numerical simulation, Ercoftac Summer School on Turbulent Combustion: Modelling and Diagnostics, Aachen Sept. 15th - 19th.
15. Vervisch, L. (1997) Dynamic large eddy simulation of non-premixed turbulent combustion, Ercoftac Summer School on Turbulent Combustion: Modelling and Diagnostics, Aachen Sept. 15th - 19th.
16. Vervisch, L. (1996) Pdf modelling and Dynamics of Iso-concentration surfaces in premixed turbulent flames, Von Karman Institute, Combustion and turbulence in two-phase flows, Jan. 26 - Feb. 2.
17. Vervisch, L. (1996) Modelling of finite rate chemistry in non-premixed and partially premixed turbulent flames, Von Karman Institute, Combustion and turbulence in two-phase flows, Jan. 26 - Feb. 2.
18. Vervisch, L. (1994) PDF transport modelling, Modelling of combustion and turbulence, CNRS, Von Karman Institute, CSAMI, CRIHAN, Aussois, March 14-18.
19. Vervisch, L. (1994) Structure of turbulent non-premixed flames, Modelling of combustion and turbulence, CNRS, Von Karman Institute, CSAMI, CRIHAN, Aussois, March 14-18.
20. Vervisch, L. (1994) PDF transport modelling, Quatrième Ecole de Combustion, Collonges la Rouge, 26 Mai, 4 Juin.
21. Vervisch, L. (1994) Structure of nonpremixed turbulent flames, Quatrième Ecole de Combustion, Collonges la Rouge, 26 Mai, 4 Juin.
22. Vervisch, L. (1993) Applications of turbulent combustion to real flames calculations, Modelling of combustion and turbulence, CNRS, Von Karman Institute, CSAMI, CRIHAN, Aussois, January 10-14.

23. Vervisch, L. (1993) Effects of finite-rate chemistry in turbulent non-premixed flames, Modelling of combustion and turbulence, CNRS, Von Karman Institute, CSAMI, CRIHAN, Aussois, January 10-14.
24. Vervisch, L. (1992) Applications of the pdf method to real flames calculations, Modelling of combustion and turbulence, Von Karman Institute, March, Published in "Lecture notes on turbulent combustion modelling, VKI".

## Invited seminars

1. Vervisch, L. (2013) Large Eddy Simulation of turbulent flames: Automated tabulated chemistry - Flame filtering challenges. Combustion Physics Dept. Lund University, Sweden, 13 June.
2. Vervisch, L. (2012) Large Eddy Simulation of turbulent flames, KTH, Royal Institute of Technology, Stockholm Sweden, 22 November.
3. Vervisch, L. (2012) Filtering and SGS modeling: Some unanswered questions, Eleventh International Workshop on Measurement and Computation of Turbulent Non-Premixed Flames, Darmstadt, 26-28 July.
4. Vervisch, L. (2011) Turbulent combustion modeling and mixing time-history effects in Large Eddy Simulation, NUMECA International's 7th Meeting, Brussels, Belgium, 15 November.
5. Vervisch, L. (2009) Chemistry tabulation and DNS of real combustion systems, Keynote lecture at Turbulent Combustion Today and Tomorrow, Cambridge, UK, 15 December.
6. Vervisch, L. (2009) Sub-grid scale energy decomposition of the scalar variance, quality mesh criterion, RWTH, Aachen, 06 April.
7. Vervisch, L. (2004) Large Eddy Simulation in nonpremixed turbulent combustion, Meeting of the British Section of the Combustion Institute in celebration of Ken Bray's 75th Birthday, Cranfield University, 17 September.
8. Vervisch, L. (2004) DNS of Gaseous and Spray combustion, Invited paper at "A Combustion DNS theme day", Consortium on Computational Combustion for Engineering Applications (COCCFEA), Imperial College, London, UK, 15 April.
9. Vervisch, L. (2003) Large Eddy Simulation of spray evaporation, Invited paper at Workshop on LES & SGS modeling for turbulent mixing and reactive flows, CALTECH, USA, 8-9 December.

10. Vervisch, L. (2003) Edge-flame quenching, an asymptotic solution for quenching of two-dimensional planar diffusion flames. University of California, San Diego, USA, Dec. 11.
11. Vervisch, L. (2003) Direct Numerical Simulation of a turbulent V-shape premixed flames and Reynolds Average Navier Stokes modeling of jet flame with detailed chemistry. SANDIA National Lab, Livermore, USA, Dec. 12.
12. Vervisch, L. (2001) Partially premixed combustion and triple flames, ETH, Zurich, Dec. 4.
13. Vervisch, L. (1998) The challenge of non-premixed turbulent combustion modeling Fluid-Mechanics Seminar at Dept. of Mech. Eng., Nov. 11, Stanford, USA.
14. Vervisch, L. (1998) Turbulent Combustion Modeling: from RANS to LES via DNS, Tutorial at the Summer Program of the Center for Turbulence Research, Stanford-NASA AMES, July 24th.
15. Vervisch, L. (1997) Partially premixed combustion and triple flames, Imperial College, London, Feb. 20.
16. Vervisch, L. (1996) Partially premixed combustion, triple flames, RWTH AACHEN, Feb. 12.
17. Vervisch, L. (1995) Turbulent combustion modelling, Curso de doctorado, Zaragoza University, June 20 - 21.
18. Vervisch, L. (1995) Turbulent combustion modelling and triple flames, ETH Zürich, March 23.
19. Vervisch, L. (1995) Overview of Turbulent combustion modelling, non-premixed flames, Second ASCF Workshop, ETH Zürich, March 24.
20. Vervisch, L. (1995) Probability density function and dynamics of iso-concentration surfaces in turbulent premixed flames, Euroconference, "Premixed Turbulent Combustion: Introduction to the State of the Art", RWTH AACHEN, June. 8-9.
21. Vervisch, L. (1994) Pdf approach for turbulent combustion modelling, Technische Universität München, Dec. 19.

### **Invited seminars in France**

22. Vervisch, L. (2012) Challenges in optimization of turbulent combustion systems, conference invite à l'UPMC, Dec 13, Paris, France.

23. Vervisch, L. (2012) Spatially filtered flame simulation and chemistry reduction using optimization tools, conference invite au Workshop de l'ANR Tyche, Institut Curie, Dec 6, Paris, France.
24. Vervisch, L. (2012) Optimization-based detailed chemistry tabulation and mixing time history effects in rapid compression machine, Out-of-Equilibrium Dynamics, Colloquium in honor of Paul Clavin, June 13-15, Marseille, France.
25. Vervisch, L. (2011) Âge et temps de séjour, des outils pour la modélisation de la combustion turbulente ?, Conférence invitée à 'Défis de la combustion, de l'aéronautique à l'énergie', Colloque en l'honneur de Sébastien Candel, Ecole Centrale Paris, 17-18 juin.
26. Vervisch, L. (2010) Turbulent combustion: New approaches for highly refined simulations, Lecture at MUSAF Colloquium, Multiphysics and Unsteady Simulations for Aeronautical Flows, Toulouse, 27-29 September.
27. Vervisch, L. (2007) La combustion dans les systèmes de propulsion et de production d'énergie, Université de Tous les Savoirs, St Valéry, 12 Octobre.
28. Vervisch, L. (2006) Conception avancée des systèmes énergétiques et simulation numérique de la combustion turbulente, Ecole Centrale de Lyon, 30 Janvier.
29. Vervisch, L. (2005) SND and SGE des flammes turbulentes, Groupement Scientifique et Technique "Mécanique des Fluides et Turbulence", AFM, Paris, 27 Mai.
30. Vervisch, L. (2005) DNS and Physics of two phase flow turbulent flames, Workshop "Large Eddy Simulation and Acoustic Analysis Tools for Unsteady Combustion", FP6 Marie Curie Research & Training Network FLUISTCOM, CERFACS, Toulouse, May 9-12.
31. Vervisch, L. (2005) Modélisation de sous-maille pour la simulation des grandes échelles de la combustion turbulente, Journée "Combustion et Modélisation", Maison de la Recherche, Paris, 23 Mars 2005.
32. Vervisch, L. (2005) Simulation de la combustion en régime partiellement prémélangée, séminaire invité à "Observer, analyser, modéliser, dans les milieux fluides complexes", Colloque organisé par l'EGIM en l'honneur de Roland Borghi à l'occasion de ses 60 ans, Marseille, 31 janvier et 1 février 2005.
33. Vervisch, L. (2004) Simulation de la combustion turbulente, séminaire invité "Quelques problèmes rencontrés en chimie numérique: Hydrologie - combustion - atmosphère", INRIA, 16 décembre.

34. Vervisch, L. (2004) Combustion en écoulement turbulent, séminaire invité au Deuxième atelier sur la physique des supernovae thermonucléaires, Chatellillon, 22-26 Novembre.
35. Vervisch, L. (2004) Modélisation de la combustion turbulente, séminaire invité à la journée 'Mécanique des fluides numérique pour les réacteurs', Société Française de Génie des Procédés, Groupe de travail Réacteurs, Paris La Défense, 28 Septembre.
36. Vervisch, L. (2004) Simulation de la combustion et des flammes turbulentes, séminaire invité au Sixième Colloque Le CEA et ses partenaires dans le monde du calcul scientifique, Laboratoire de Physique Subatomique et de Cosmologie, UJF Grenoble, 4 Juin.
37. Vervisch, L. (2002) Combustion partiellement prémélangée, 14<sup>ème</sup> Séminaire de Mécanique des Fluides Numérique, CEA Saclay, 29-31 Janvier.
38. Vervisch, L. (2001) Partially premixed combustion, Ecole de printemps de mécanique des fluides numérique, Aussois, 13-19 Mai.
39. Vervisch, L. (1999) Further discussions on characteristic scales in nonpremixed turbulent combustion, Modeling of Reaction Front I, Lyon, April 19-21.
40. Vervisch, L. (1999) Turbulent non-premixed flames, Applied Math. Dept., Lyon, March 15.
41. Vervisch, L. (1999) Numerical Combustion Modeling, IMF-CNRS, Toulouse, Jan. 14.
42. Vervisch, L. (1999) Scales in non-premixed turbulent combustion, Université de Bordeaux, Applied Math. Dept., Jan. 28.
43. Vervisch, L. (1996) Les besoins expérimentaux du calcul numérique, 5<sup>ème</sup> Congrès français de vélocimétrie laser, Rouen, Sept.