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Contents

PhD Position - Open

Personal Information

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Guillaume Ribert
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Professor since 2023

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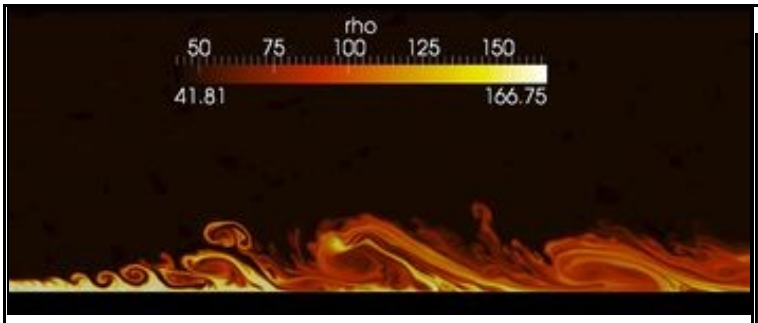
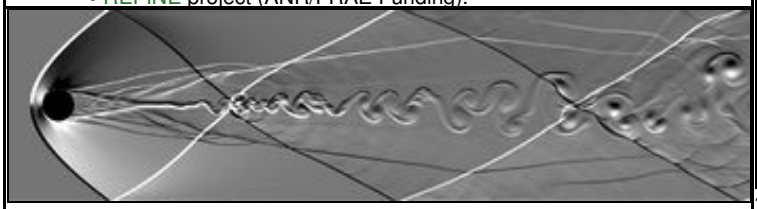
Research Activities



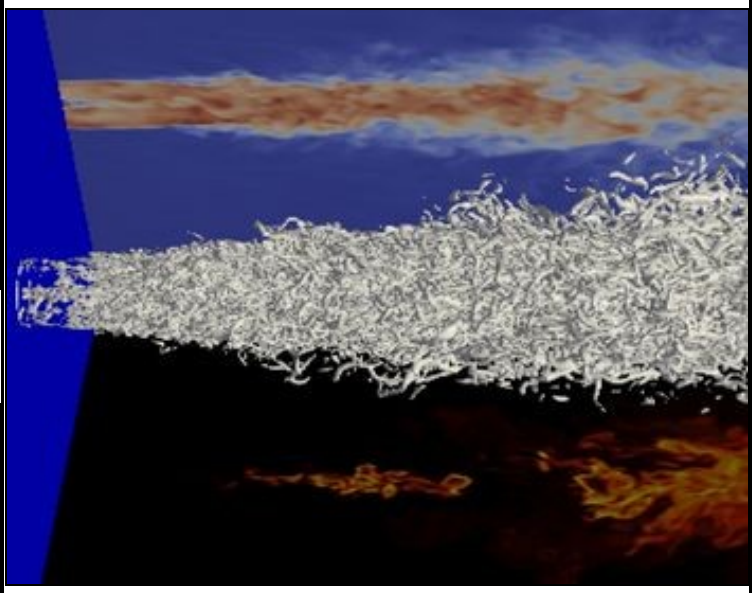
Supercritical and Transcritical Reactive Flows

- Non-reacting simulation (Mayer's jet).
- LOx/CH4 simulation (Mascotte test bench).
- REFINE project (ANR/FRAE Funding).



Compressible Flows and Shock Waves

- Shock Focusing.
- Compressible Channel Flows.
- Jet Flame (Cheng Burner)



Turbulent Combustion Modeling:

- S2FT.
- HTTC.

Students Supervising

Ph.D.

- **Magué Maiga**: 2025-2028 (100%)
- **Romain Megret**: 2025-2028 (50% with P. Domingo)
- **Louis Duhem-Duvilla**: 2022-2025 (100%)
- **Maxime Bouton**: 2022-2025 (50% with Aurélie Nicole et Aurélien Genot)
- **Quentin Cerutti**: 2022-2025 (50% with P. Domingo)

1. **Florian Kissel**: 2021-2024 (50% with P. Domingo) Simulation numérique de la combustion diphasique dans les écoulements supersoniques link. [Now at **ONERA**]
2. **Téodor Chazelle**: 2021-2024 (30% with B. Barviau et J.-B. Blaisot) Etude expérimentale de l'injecti?n de fluides à haute pressi?n (supercritique) p?ur une applicati?n de type m?teurs-fusées. [Now Postdoc at **INSA**]
3. **Emilie Yhuel**: 2021-2024 (50% with P. Domingo) Simulation et analyse de l'interaction entre une flamme hydrogène/air et un choc incident link. [Now at **CEA**]

1. **Florian Monnier**: 2019-2023 (100%) Modélisation et simulation numérique de la combustion dans les moteurs-fusées : étude des flammes LOx/CH4 link. [Now at **ArianeGroup**]
2. **Pierre Bénez**: 2020-2023 (50% with V. Moureau) Simulati?n des perf?rmances d'aspirati?n des p?mpes à carburant basse pressi?n. [Now at **Safran**. Previous: Post-Doc at **TU Berlin**]
3. **Loic J. Ruan**: 2015-2019 (50% with P. Domingo) Large-Eddy simulation of supersonic combustion in cavity-based scramjets link. [Now at **ONERA**]
4. **Kevin Bioche**: 2015-2018 (50% with L. Vervisch) Analyse de la propagation d'une flamme méthane/air dans un canal étroit bi-dimensionnel avec prise en compte des couplages thermiques link. [Now **Ass. Prof. INSA de Rouen**. Previous: Post-Doc. at the faculty of Brussels (VUB), ATER at INSA]
5. **Umut Guven**: 2014-2018 (50% with J. Reveillon) Modélisation et simulation haute fidélité de la combustion pour les moteurs-fusées link. [Now at **Framatome**. Previous: CEA, CNES]
6. **Nathalie Vallée**: 2014-2018 (50% with J.-B. Blaisot) Caractérisation des jets à hautes pressions: étude expérimentale d'injections continues sub-, trans- et super-critiques link. [Now at **Petroleum Analyzer Company**. Previous at AKKA, ONERA]
7. **Bastien Duboc**: 2013-2016 (50% with P. Domingo) Modélisation hybride de la chimie pour la simulation numérique de la combustion link. [Now at **Siemens (Gamesa)**]
8. **Lisa Bouheraoua**: 2011-2014 (50% with P. Domingo) Simulation aux grandes échelles et modélisation de la combustion supersonique link. [Now **Resp. RTI Safran Aerosystems**. Previous: DASSAULT, SAFRAN-TECH]
9. **Xavier Petit**: 2010-2014 (60% with P. Domingo) Etude de l?interaction cinétique chimique/turbulence dans une flamme cryotechnique LOx/CH4 link. [Now: **Prony Resources New Caledonia**. Previous: IRD [Institut français de recherche scientifique internationale], Airbus Safran Launcher]
10. **David Taieb**: 2007-2010 (50% with A. Hadjadj) Simulation numérique des écoulements turbulents dans les canaux de refroidissement. Application aux moteurs-fusées link. [Now at **Safran Aerosystems**. Previous: at Safran Helicopter Engines]

Post-Doctorate Fellow

- **Téodor Chazelle**: 2024-2026
- **Deewakar Sharma**: 2018-2019
- **Ke Wang**: 2008-2009 (with L. Vervisch and P. Domingo)

Master of Sciences

- 2022: Quentin Cerutti (with P. Domingo) and Louis Duhem-Duvilla
- 2021: Emilie Yhuel (with P. Domingo)

- 2014: Nathalie Vallée (with J.-B. Blaisot and C. Dumouchel), H. Larabi (with V. Moureau)
- 2013: Stéphane Mbakop (with P. Domingo) and Jiayuan Tan.
- 2012: Han Gao
- 2011: Lisa Bouheraoua (with P. Domingo) and Jiaxin Zhao.
- 2010: Xavier Petit (with P. Domingo)
- 2008: Clément Fryer

Teaching Activities

INSA de Rouen
G. Ribert is **Head of the Aerospace Specialization** at INSA de Rouen where he gives the following lectures (mainly):

- Fluid Mechanics (~ 60h);
- Aerodynamics (~ 45h);
- Combustion and Detonation (~ 45h);
- Heat and Mass Transfer (~ 35h);
- The *Journée de la Mécanique du Vol* Organizer with Ambassadair.

Journée de la Mécanique du Vol


JMV-2010


JMV-2010


JMV-2010

Background

- 2023: Professor (Professeur des Universités), Energy and Propulsion Dpt.
- 2006-2023: Maitre de Conférences (Associate Professor) at INSA de Rouen Normandie, Mechanical Dpt.
- 2010-2023: in charge of the Aerospace specialization (INSA, Master 2, Mechanical Dpt.)
- 2015: Habilitation à Diriger les Recherches (French Tenure Track)
- 2005-2006: post-doctoral fellowship at the Pennstate University, PA, USA. Research Topic: Supercritical Turbulent Combustion (*supervisor*: V. Yang).
- 2002-2005: Ph.D. focused on Turbulent Combustion Modeling, Ecole Centrale Paris, EM2C Lab, France (*supervisors*: N. Darabiha, O. Gicquel, D. Veynante).
- 2001-2002: M.S. of Aerospace and Combustion, ENSMA, France (*supervisor*: M. Champion).
- 1998-2001: B.S. of Mechanical Engineering, Ecole Centrale Marseille (ESIM), France.

Awards

CNRS research-fellow: 2014-2015 and 2016-2017 (1 year each)
Visiting research-fellow at The School of Aerospace Engineering at the Georgia Institute of Technology: 2013, 2014, 2015, 2016, 2017, 2018.
Visiting research-fellow at Center for Turbulence Research, Stanford University: 2008, 2012, 2016.
Visiting research-fellow at SFB-TR40, Technische Universität München: 2011, 2013, 2015, 2017.
Visiting research-fellow at PERC, PennState University: 2007, 2008.
Paul Laffitte Award from the GFC (French section of the Combustion Institute) for the best PhD for the period 2005-2007.

Reviewing activities

2019 - present: Associate Editor of "Comptes-Rendus Mecanique", Elsevier.
Reviewer for Combustion and Flame, The Combustion Symposium, Flow Turbulence and Combustion, Combustion Science and Technology, International Journal of Heat and Mass Transfer, AIAA Journal, CR Académie Sciences (CRAS), Journal of Fluid Mechanics, Computers and Fluids,

Energy & Fuels, Journal of Propulsion and Power.

Publications

Peer-Reviewed International Journal Articles

1. T. Chazelle, J.-B. Blaisot, B. Barviau, **G. Ribert** (2026) Characterization of shear coaxial injection in supercritical conditions by morphological and velocimetric analysis, *Atomizat. Sprays* **(x,x) (in press)**.
   DOI: 10.1615/AtomizSpr.2026063348 link.
2. M. Bouton, A. Nicole, N. Fdida, S. Boulal, L. Vingert, M. Théron, A. Genot, **G. Ribert** (2026) Experimental analysis of a transcritical LOX/CH4 swirl flame, *Combust. Flame* **(288)**: 114927.
   DOI: 10.1016/j.combustflame.2026.114927 link.
3. F. Kissel, **G. Ribert**, P. Domingo (2026) A semi-implicit method for the finite-rate chemistry integration in numerical simulations of combustion: application to highly compressible flows, *Comput. Fluids* **(309)**: 107001.
   DOI: 10.1016/j.compfluid.2026.107001 link.
4. Q. Cerutti, **G. Ribert**, P. Domingo (2026) Direct numerical simulation of Hydrogen-Air-Steam laminar and turbulent flames, *Combust. Flame* **(286)**: 114813
   DOI: 10.1016/j.combustflame.2026.114813 link.
5. E. Yhuel, **G. Ribert**, P. Domingo (2026) Influence of flame topology and Mach number on flame-shock interaction in a semi-closed channel, *Combust. Flame* **(283)**: 114526.
   DOI: 10.1016/j.combustflame.2025.114526 link.
6. T. Chazelle, S. Idlahcen, F. Lespinasse, J.-B.Blaisot, **G. Ribert**, B. Barviau (2025) Phase and density dependency of the Raman spectrum of ethane around its critical point, *J. of Raman Spectroscopy* **(57,2)**: 384-392.
   DOI: 10.1002/jrs.70056 link.
7. E. Yhuel, A. Roque CCacya, **G. Ribert**, P. Domingo, N. Chaumeix (2025) Numerical and experimental comparison of H2/air flame-shock interaction, *Proc. Combust. Inst.* **(41)**: 105847.
   DOI: 10.1016/j.proci.2025.105847 link.
8. T. Chazelle, N. Vallée, J.-B. Blaisot, B. Barviau, **G. Ribert** (2025) Morphology and typology of experimental high-pressure (supercritical) non-assisted jets, *Atomizat. Sprays* **(35,6)**: 51-80.
   DOI: 10.1615/AtomizSpr.2025058934 link.
9. F. Kissel, **G. Ribert**, P. Domingo (2025) Large-Eddy Simulations of kerosene spray combustion in a supersonic jet flow, *Aerosp. Sci. Technol.* **(161)**: 110164.
   DOI: 10.1016/j.ast.2025.110164 link.
10. F. Monnier, **G. Ribert**, L. Duhem-Duvilla (2024) CH4/O2 supercritical flame structure and simulation, *Proc. Combust. Inst.* **(40)**: 105514.
    DOI: 10.1016/j.proci.2024.105514 link.
11. V. Giovangigli, Y. Le Calvez, **G. Ribert** (2024) Multicomponent thermodynamics with instabilities and diffuse interfaces fluids, *AIMS Mathematics* **(9,9)**: 25979-26034.
    DOI: 10.3934/math.20241270 link.
12. P. Bénez, V. Moureau, M. Caiiler, **G. Ribert**, P. Mingret, M. Robin (2024) High-Fidelity Simulation of an Industrial Low-Pressure Pump of Helicopter Using Coupled LES/CAA Method, *Proc. ASME*, V10CT32A009.
    DOI: 10.1115/GT2024-123185 link.
13. E. Yhuel, **G. Ribert**, P. Domingo (2023) Numerical simulation of laminar premixed hydrogen-air flame/shock interaction in semi-closed channel, *Proc. Combust. Inst.* **(39,3)**: 3021 - 3029.
    DOI: 10.1016/j.proci.2022.11.002 link.
14. F. Monnier, **G. Ribert** (2023) Numerical simulations of supercritical CH4/O2 flame propagation in inhomogeneous mixtures following ignition, *Proc. Combust. Inst.* **(39,2)**: 2747 - 2755.
    DOI: 10.1016/j.proci.2022.07.213 link.
15. P. Bénez, G. Lartigue, V. Moureau, **G. Ribert**, M. Robin (2022) A Coupled Computational Aero-Acoustics (CAA)/ Large-Eddy Simulation (LES) Approach for the Pressure Calculation in Internal Low-Mach Number Flows, *Proc. ASME*, V10CT32A009.
    DOI: 10.1115/GT2022-80476 link.
16. F. Monnier, **G. Ribert** (2022) Simulation of high-pressure methane-oxygen combustion with a new reduced chemical mechanism, *Combust. Flame* **(235)**: 111735.
    DOI: 10.1016/j.combustflame.2021.111735 link.
17. J. Ruan, **G. Ribert**, P. Domingo (2021) Stabilization and extinction mechanisms of flames in cavity flameholder scramjets, *Combust. Theory Model.* **(25,2)**: 193 - 207.
    DOI: 10.1080/13647830.2020.1845806 link.
18. H. Chouraqui, G. Dayma, **G. Ribert**, F. Halter, C. Chauveau, P. Dagaut (2021) Experimental and numerical studies of the diluent influence (N2, Ar, He, Xe) on stable premixed methane flames in micro-combustion, *Proc. Combust. Inst.* **(38,4)**: 6753 - 6761.
    DOI: 10.1016/j.proci.2020.06.325 link.
19. J. Ruan, L. Bouheraoua, P. Domingo, **G. Ribert** (2021) Simulation of a Scramjet Combustor: A Priori Study of Thermochemistry Tabulation Techniques, *Flow, Turbulence and Combustion* **(106)**: 1241 - 1276.
    DOI: 10.1007/s10494-020-00184-4 link
20. J. Ruan, P. Domingo, **G. Ribert** (2020) Analysis of combustion modes in a cavity based scramjet, *Combust. Flame* **(215)**: 238 - 251.
    DOI: 10.1016/j.combustflame.2020.01.034 link.
21. K. Bioche, A. Pieyre, **G. Ribert**, F. Richecoeur, L. Vervisch (2019) The role of gravity in the asymmetry of flames in narrow combustion chambers, *Combust. Flame* **(203)**: 238 - 246.
    DOI: 10.1016/j.combustflame.2019.02.020 link.
22. **G. Ribert**, P. Domingo, L. Vervisch (2019) Analysis of sub-grid scale modeling of the ideal-gas equation of state in hydrogen-oxygen premixed flames, *Proc. Combust. Inst.* **(37,2)**: 2345 - 2351.
    DOI: 10.1016/j.proci.2018.07.054 link.
23. U. Guven, **G. Ribert** (2019) Impact of non-ideal transport modeling on supercritical flow simulation, *Proc. Combust. Inst.* **(37,3)**: 3255 - 3262.
    DOI: 10.1016/j.proci.2018.05.013 link.
24. B. Duboc, **G. Ribert**, P. Domingo (2019) Evaluation of chemistry models on methane/air edge flame simulation, *Proc. Combust. Inst.* **(37,2)**: 1691 - 1698.
    DOI: 10.1016/j.proci.2018.05.053 link.
25. K. Bioche, **G. Ribert**, L. Vervisch (2019) Simulating upstream flame propagation in a narrow channel after wall preheating: Flame analysis and chemistry reduction strategy, *Combust. Flame* **(200)**: 219 - 231.
    DOI: 10.1016/j.combustflame.2018.11.028 link
26. B. Duboc, **G. Ribert**, P. Domingo (2019) Hybrid transported-tabulated chemistry for partially premixed combustion, *Computers Fluids* **(179)**: 206 - 227.
    DOI: 10.1016/j.compfluid.2018.10.019 link
27. K. Bioche, L. Vervisch, **G. Ribert** (2018) Premixed flame-wall interaction in a narrow channel: Impact of wall thermal conductivity and heat losses, *J. Fluid Mech.* **(856)**: 5 - 35.
    DOI: 10.1017/jfm.2018.681 link.
28. B. Duboc, **G. Ribert**, P. Domingo (2018) Description of kerosene / air combustion with hybrid transported-tabulated chemistry, *Fuel* **(233)**: 146 - 158.
    DOI: 10.1016/j.fuel.2018.06.014 link
29. U. Guven, **G. Ribert** (2018) Large-eddy simulation of supersonic H2/O2 combustion: application to a rocket-like igniter, *J. Propul. Power* **(34,2)**: 291 - 307.
    DOI: 10.2514/1.B36542 link
30. L. Bouheraoua, P. Domingo, **G. Ribert** (2017) Large Eddy Simulation of a supersonic lifted jet flame: Analysis of the turbulent flame base, *Combust. Flame* **(179)**: 199 - 218.
    DOI: 10.1016/j.combustflame.2017.01.020 link
31. **G. Ribert**, X. Petit, P. Domingo (2017) High-pressure methane-oxygen flames. Analysis of sub-grid scale contributions in filtered equations of state, *J. Supercritical Fluids* **(121)**: 78 - 88.
    DOI: 10.1016/j.supflu.2016.08.020 link
32. N. Jaouen, L. Vervisch, P. Domingo, **G. Ribert** (2017) Automatic reduction and optimisation of chemistry for turbulent combustion modeling: Impact of the canonical problem, *Combust. Flame* **(175)**: 60 - 79.
    DOI: 10.1016/j.combustflame.2016.08.030 link
33. **G. Ribert**, D. Taieb, V. Yang (2015) Large-eddy simulation of a supercritical channel flow using a shock capturing numerical scheme, *Computers & Fluids* **(117)**: 103 - 113.

DOI: 10.1016/j.compfluid.2015.05.014 link

34. X. Petit, **G. Ribert**, P. Domingo (2015) Framework for real-gas compressible reacting flows with tabulated thermochemistry, *J. Supercritical Fluids* **(101)**: 1 - 16.
DOI: 10.1016/j.supflu.2015.02.017 link.
35. **G. Ribert**, L. Vervisch, P. Domingo, Y.-S. Niu (2014) Hybrid Transported-Tabulated Strategy to Downsize Detailed Chemistry for Numerical Simulation of Premixed Flames, *Flow Turbul. Combust.* **(92)**: 175 - 200.
DOI: 10.1007/s10494-013-9520-6 link.
36. X. Petit, **G. Ribert**, G. Lartigue, P. Domingo (2013) Large-eddy simulation of supercritical fluid injection, *J. Supercritical Fluids* **(84)**: 61 - 73.
DOI: 10.1016/j.supflu.2013.09.011 link.
37. D. Taieb and **G. Ribert** (2013) Direct Numerical Simulation and Large-Eddy Simulation of Supersonic Channel Flow, *J. Propul. Power* **(29)**: 1064 - 1075.
DOI: 10.2514/1.B34777 link.
38. **G. Ribert**, K. Wang and L. Vervisch (2012) A multi-zone self-similar chemistry tabulation with application to auto-ignition including cool-flames effects, *Fuel* **(91)**: 87 - 92.
DOI: 10.1016/j.fuel.2011.07.036 link
39. K. Wang, **G. Ribert**, P. Domingo and L. Vervisch (2010) Self-similar behavior and chemistry tabulation of burnt-gas diluted premixed flamelets including heat-loss, *Combust. Theory Model.* **(14)**: 541 - 570.
DOI: 10.1080/13647830.2010.502248 link
40. D. Taieb, **G. Ribert** and A. Hadjadj (2010) Numerical Simulations of Shock Focusing over Concave Surfaces, *AIAA J.* **(48,8)**: 1739 - 1747.
DOI: 10.2514/1.J050199 link
41. L. Pons, N. Darabiha, S. Candel, **G. Ribert** and V. Yang (2009) Mass transfer and combustion in transcritical non-premixed counterflows, *Combust. Theory Model.* **(13)**: 57 - 81.
DOI: 10.1080/13647830802368821 link
42. **G. Ribert**, N. Zong, V. Yang, L. Pons, N. Darabiha and S. Candel (2008) Counterflow diffusion flames of general fluids: oxygen/hydrogen mixtures, *Combust. Flame* **(154)**: 319 - 330.
DOI: 10.1016/j.combustflame.2008.04.023 link
43. **G. Ribert**, O. Gicquel, N. Darabiha and D. Veynante (2006) Tabulation of complex chemistry based on self-similar behavior of laminar premixed flames, *Combust. Flame*, **(146)**: 649 - 664.
DOI: 10.1016/j.combustflame.2006.07.002 link
44. **G. Ribert**, M. Champion, O. Gicquel, N. Darabiha and D. Veynante (2005) Modeling non adiabatic turbulent premixed reactive flows including tabulated chemistry, *Combust. Flame*, **(141)**: 271 - 280.
DOI: 10.1016/j.combustflame.2004.12.019 link
45. **G. Ribert**, M. Champion and P. Plion (2004) Modeling turbulent reactive flows with variable equivalence ratio: application to the calculation of a reactive shear layer, *Combust. Sci. Tech.* **(176)**: 907 ? 923.
DOI: 10.1080/00102200490428530 link

Art-Science Research

1. M. Mosseron and G. Ribert, L?image instantanée et moyenne : l?exemple des écoulements turbulents chez Léonard de Vinci et Frits Thaulow, *Revue A l'Epreuve* **(1)**: 1-25 (2014).
2. M. Mosseron and G. Ribert, La science des nuages: entre représentation artistique et phénomène météorologique, *Revue de l'Histoire de l'Art* **(67)**: 19-32 (2010).

Chapter of Book (peer-reviewed)

1. G. Ribert, P. Domingo, X. Petit, N. Vallée, J.-B. Blaisot, Modelling and simulations of high-pressure practical flows (pp: 629-676), *AIAA Book Series*: High-Pressure Flows for Propulsion Applications (J. Bellan), Print ISBN 978-1-62410-580-7, (2020).
2. G. Ribert, D. Taieb, X. Petit, G. Lartigue and P. Domingo, Simulation of supercritical flows in rocket-motor engines: application to cooling channel and injection system, *Eucass Book Series, Adv. Aerospace Sci., Prog. Propul. Phys.* **(4)**: 205 - 226 Print ISBN 978-2-7598-0876-2, (2013).
3. G. Ribert, P. Thakre, Z. Wang, R. Yetter and V. Yang, Fundamental combustion characteristics of syngas, in ?Synthesis gas combustion : Fundamentals and applications?, *CRC Press*, Print ISBN 9781420085341, (2009).

Proceedings

1. N. Vallée, U. Guven, J.-B. Blaisot, G. Ribert, Real-gas effect on fluid injection: a numerical an experimental study, *Proceeding of the TRR40 Summer Program* (2017).
2. G. Ribert, P. Domingo, L. Vervisch, Sub-grid scale modeling of the equation of state for fully compressible combustion LES, *Proceeding of the CTR Summer Program* (2016).
3. G. Ribert, B. Duboc, U. Guven, P. Domingo, Modeling and simulation of combustion in the context of rocket engine ignition, *Proceeding of the TRR40 Summer Program* (2015).
4. G. Ribert, L. Bouheraoua, P. Domingo, Large-eddy simulation of supersonic reacting flows, *Proceeding of the TRR40 Summer Program* (2013).
5. G. Ribert, P. Domingo, L. Vervisch, An hybrid transported-tabulated strategy to downsize detailed chemistry for Large Eddy Simulation, *Proceeding of the CTR Summer Program* (2012).
6. G. Ribert, M.-M. Jarczyk, C. Niedermeier, X. Petit, M. Pfitzner, T. Sattelmayer, M. Schmid, Supercritical fluid flow injection, *Proceeding of the TRR40 Summer Program* (2011).
7. L. Selle and G. Ribert, Modeling requirements for LES turbulent flows under supercritical thermodynamic conditions, *Proceeding of the CTR Summer Program* (2008).

Invited Conferences

1. P. Domingo, G. Ribert, High fidelity simulations of supersonic combustion. *16th ICFD* (Sendai, Miyagi, Japan), 2019.
2. G. Ribert, Real-gas effects on fluid injection: numerical and experimental study, *Int. Combustion Institute Summer School (ICISS)*, Sao Paulo (Brazil), 2015.

Conferences

1. L. Duhem Duvilla, G. Ribert, Numerical simulations of high-pressure (supercritical) CH4/LOx flows. *Int. Conf. on Numerical Combustion* (Roma, Italy), 2025.
2. M. Bouton, A. Nicole, N. Fdida, S. Boulal, L. Vingert, M. Théron, A. Genot, G. Ribert, Experimental study of a transcritical LOx/CH4 swirl flame *30th ICDERS* (Ottawa, Canada), 2025.
3. M. Bouton, A. Nicole, A. Genot, G. Ribert, Large Eddy Simulation of a LOx/CH4 swirl flame under transcritical conditions *30th ICDERS* (Ottawa, Canada), 2025.
4. A. Beroudiaux, L. Vervisch, Q. Cerutti, P. Domingo, G. Ribert, Combustion explicitly filtered large-eddy simulation: a novel approach to multi-species LES *30th ICDERS* (Ottawa, Canada), 2025.
5. F. Kissel, P. Domingo, G. Ribert, Numerical simulation of two-phase combustion in a scramjet *30th ICDERS* (Ottawa, Canada), 2025.
6. Q. Cerutti, G. Ribert, P. Domingo, Numerical simulation of Hydrogen-Air-Steam flames. *12th ECM* (Edinburgh, Scotland, UK), 2025.
7. L. Duhem Duvilla, G. Ribert, High-fidelity simulations using dual-time stepping preconditiong method. *12th ECM* (Edinburgh, Scotland, UK), 2025.
8. T. Chazelle, F. Lespinasse, S. Idlhacen, B. Barviau, J.-B. Blaisot, G. Ribert, Characterization of shear coaxial injection of fuel in supercritical conditions through velocity measurements. *12th ECM* (Edinburgh, Scotland, UK), 2025.
9. A. Béroudiaux, L. Vervisch, Q. Cerutti, P. Domingo, G. Ribert, A Novel Multi-Species Formalism for Large-Eddy Simulation. *12th ECM* (Edinburgh, Scotland, UK), 2025.

10. E. Yhuel, G. Ribert, P. Domingo, A. Roque-Ccacya, N. Chaumeix, Numerical and experimental comparison of H2/air flame-shock interaction. *12th ECM* (Edinburgh, Scotland, UK), 2025.
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12. Q. Cerutti, G. Ribert, and P. Domingo, Numerical simulation of hydrogen-air-steam flames with NOx production. *SIAM Int. Conf. on Numerical Combustion*, Kyoto (Japan), 2024.
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Miscellaneous

G. Ribert was member of the Administrative Committee of the French Section of the Combustion Institute: 2016-2022
G. Ribert was member of the Mechanical Dpt. Committee (INSA): 2012-2018.
G. Ribert was Coordinator of the Research Group 'Numerical Simulation and Modeling of Turbulent Combustion' (CORIA) from 2012 to 2017
G. Ribert was member of the CORIA Lab Committee: 2008-2012.
G. Ribert was member of the CORIA Lab Sci. Committee: 2014-2020.
G. Ribert was chairman of the Aerospace Propulsion Day in 2014.
G. Ribert was co-organizer of the 18th ISIS Conference in 2008.
G. Ribert was member of the LES-AID (2007) and HRTC (2011) Conf. scientific committee.
Seminars: Univ. of Stuttgart and Darmstadt in 2015, TUM in 2019.
CSI (comité de Suivi Individuel): H.-T. Nguyen, A. Seltz, A. Bouaniche, W. Veloz Parra, C. Langrée, H. Tofaili, N. Lyagoubi, J. Cardenas Cabezas, L. Gaipl, Z. Bahzhar, T. Barottin, M. Kotlarczik, C. Levillain.
Master internship (M1): [C. Escal - 2025], [M. Brayer - 2021], [N.C. Gabriel, S. Pesqueux, N. Bengaouer, L. Gohier, S. Guo - 2020], [B. Duboc].