

Laurent Bricteux

Personal

Born: 01-12-76 Uccle, Belgium	Address: 23 rue du Culot 1341 Céroux-Mousty, Belgium
Citizenship: Belgium Married, 2 Children	Tel: +32.498.72.26.47 Email: laurent.bricteux@gmail.com

Education

2004 — 2008	Université catholique de Louvain Ph.D. in mechanical engineering
2004 — 2006	Université catholique de Louvain Complementary master in mechanical engineering
1995 — 2000	Université catholique de Louvain Master in mechanical engineering Master thesis performed at the von Karman institute for fluid dynamics (VKI)

Work

2019 — present	Professor, tenured , University of Mons, Belgium
2021—present	Invited Professor , Université catholique de Louvain, Belgium
2011 — 2019	Assistant Professor, tenured , University of Mons, Belgium
2010 — present	Part time lecturer, tenured , ECAM, (Brussels engineering school)
2008 — 2011	Senior research engineer , Université catholique de Louvain Main tasks: working on EU-FP7 research projects and industrial R&D contracts in energetics and fluid mechanics.
2004 — 2008	Research assistant , Université catholique de Louvain Main task: working on the research project LASEF ("LASER à source d'émissions fibrée")
2001 — 2004	Application engineer , LMS-Siemens Main tasks: technical consulting in finite and boundary element methods for acoustics, aeroacoustics, vibrations and optimisation Key account responsibility: Renault, Ford, Autovaz,...

Languages

French	Mother tongue
English	Fluent both written and oral
Dutch	Good knowledge

Areas of professional interest

- Expertise in fluid dynamics, heat transfer, thermodynamics, turbomachinery, structural vibrations, aeroacoustics, internal combustion engines, combustion.
- Expertise in optical measurement techniques: Particle Image Velocimetry (PIV), Laser Doppler Velocimetry (LDV), Light Detection And Ranging (LIDAR).
- Research in computational fluid dynamics (CFD), energy conversion systems, in computational aeroacoustics (CAA), numerical methods, massively parallel computing.
- Member of the American Physical Society (APS), Division of Fluid Dynamics (DFD).
- Member of the Belgian Section of the Combustion Institute.
- Member of the Belgian Pilot Center of ERCOFTAC (European Research Community on Flow, Turbulence and Combustion).
- Member of the board at CECI ("Consortium des équipements de calcul intensif", Belgium)

Teaching activities

Principal lecturer of the following courses at Université de Mons, 2011—present:

- Internal combustion engines (2nd cycle) (20h/year)
- Compressors (2nd cycle) (20h/year)
- Steam and gas turbines (2nd cycle) (20h/year)
- Technical thermodynamics (2nd cycle) (20h/year)
- Turbomachinery and energetics for electrical engineers (2nd cycle) (15h/year)
- Turbulence (15h/year)
- Erasmus Mundus joint master degree in smart cities (8h/year).

Teaching assistant of the following courses at Université catholique de Louvain:

- Thermodynamics and energetics (2nd cycle) (30h/year) (2004, 2005, 2006)
- Numerical methods in fluid dynamics (2nd cycle, project) (15h/year) (2005, 2006, 2007, 2008, 2009)
- Physical mathematics: partial derivatives equations (1st cycle) (15h/year) (2004)
- Fluid mechanics and heat transfer (2nd cycle) (30h/year) (2008)
- Numerical methods in fluid dynamics as invited professor (2nd cycle) (30h/year) (2019)

Part time lecturer at ECAM (Brussels engineering school), Brussels, 2010—present

- Teaching fluid mechanics and heat transfer (BA2, 200 students) (42 hours/year) .

Part time lecturer at UCLouvain, 2021—present

- Introduction to turbomachinery (Master) (15 hours/year) .

Master Thesis:

- Advisory of 10 master thesis at UCLouvain.
- Supervisor of 30 master thesis at UMONS (among them 5 with international collaboration (TU-Delft, Supaero-Toulouse, ETS-Montréal))
- Supervisor of 3 master thesis at ECAM (Collaborations with VKI and UCSD)
- Supervisor of the Shell eco-marathon project, urban concept category at UMONS (2012-present).
- Supervisor at UMONS of long duration (8 weeks) students internships in collaboration with industry and research centers (Cenaero, VKI, SONACA).

Supervision of Ph.D. thesis:

- E. Stendardo, Large Eddy simulation of turbulent reactive flows in micro gas turbines combustion chambers with hydrogen (collaboration with Prof. J. Blondeau at VUB).
- P. Tene Hedge, Large Eddy simulation of turbulent flows in low pressure high speed turbines (collaboration with Prof. Lavagnoli, VKI).
- A. Verhaeghe: Carbon Capture in Combined Cycle Gas Turbines (collaboration with Prof. W. De Paepe at UMONS).
- M. Coquelet: Control of wind turbines in waked flows using artificial intelligence and biomimetic paradigms. (collaboration with Prof. P. Chatelain at UCLouvain Defended December 2022).
- A. Pappa: Experimental and numerical modeling of exhaust gas recirculation in micro gas turbines. (collaboration with Prof. W. De Paepe at UMONS).
- N. Coudou: Experimental and numerical investigation of wind turbine wake meandering. (collaboration with Prof. P. Chatelain at UCLouvain and Prof. J. Van Beeck at von Karman institute, Defended February 2021.).
- S. Giorgetti: Advanced gas turbine cycles in the framework of CO₂ capture and NO_x reduction (collaboration with Prof. A. Parente at ULB, FRIA grant obtained in october 2016. Present position: engineer at Atlas Copco. Defended in september 2020.)
- O. Temel: Numerical prediction of pollutant transport in atmospheric boundary layers (collaboration with Prof. J. Van Beeck at von Karman institute, Defended in april 2018). Present position: researcher at Royal Observatory of Belgium
- M. Cordier: Large Eddy Simulation of flameless combustion with complex chemistry. (Defended may 2021. collaboration with Prof. P. Lybaert at UMONS)
- S. Zeoli: Numerical Simulation of turbulent flows with application to wind engineering problems. (Defended march 2018. Present position: tenured lecturer at UMONS.)

Post-Doc supervision

- K. Bioche: Large Eddy Simulation of gas turbine combustion chamber using electrofuels. (with Prof. J. Blondeau at VUB). Present position: assistant professor at INSA-Rouen.
- P. Bénard: Large Eddy Simulation of wind turbine wake flows. Present position: assistant professor at INSA-Rouen.

Involvement in Ph.D thesis steering committee, mentoring and jury:

- P. Biluart (UCLouvain), Implementation of an incompressible hybrid Eulerian-Lagrangian external flow solver (Member of the advisory committee and jury. Thesis defended, June 2023).
- B. Hardy (UCLouvain), Direct numerical simulation of mono-disperse fluid-particle flows (Member of the jury. Thesis defended, March 2022).
- M. Pochet (UCLouvain), Fuel resilient cogeneration systems based on HCCI engines (Member of the advisory committee and jury. Thesis defended, June 2020.).
- A. Rahouti (UMONS), Virtual Reality-based Fire Safety Training in Healthcare Facilities. (President of the jury. Thesis defended, September 2020).
- M. Ferraroti (ULB), Fuel flexibility for smart energy carriers in novel combustion system (Member of the advisory committee and jury. Thesis defended, September 2020).
- S. Gremmo (UMONS): Innovative numerical methods for solver and mesh-generator in CFD software when large displacements are taken into account (Member of the advisory committee and jury. Thesis defended, September 2020.).

- K. Adib (Institut de mécanique des fluides de Toulouse) , Modélisation des effets de topographie sur une couche limite neutre (Member of the jury, Université de Toulouse. Thesis defended, November 2019)
- G. Tian (Ecole Centrale de Nantes), Analysis of the unsteady boundary-layer flow over urban-like canopy using large eddy simulation. (Member of the jury. Thesis defended, december 2018)
- R. Nigro (UMONS): Aerodynamic geometrical optimisation of turbomachines taking into account geometrical and manufacturing uncertainties (Member of the advisory committee and jury. Thesis defended, September 2018.).
- G. Lorieul (UCLouvain): Numerical simulation of multiphase flows for thermal hydraulic applications (Member of the advisory committee and jury. Thesis defended, August 2018.).
- N. Bourgeois (UCLouvain): Large Eddy Simulation of an HCCI engine using detailed chemistry (Member of the advisory committee and jury. Thesis defended, December 2017.).
- P. Doran (ETS-UQAM-Montreal), Etude des instabilités des tourbillons de sillage d'avion en effet de sol. (Member of the jury. Thesis defended, June 2017.).
- C. de Maesschalck (VUB-Purdue University), Design, analysis, optimization and control of turbine rotor tip flows (Member of the jury. Thesis defended, January 2017.).
- V. Loodts (ULB), Influence of chemical reactions on convective dissolution : a theoretical study (Member of the jury. Thesis defended, December 2016.).
- S. G. Horcas (UMONS): CFD Methodology for Wind Turbine Fluid-Structure Interactions (Member of the jury. Thesis defended, October 2016.).
- C. Carton de Wiart (UCLouvain): Towards a Discontinuous Galerkin solver for scale-resolving simulations of moderate Reynolds number flows, and application to industrial cases. (Member of the advisory committee and jury. Thesis defended, June 2014.).
- F. Debrabandere (UMONS): Computational methods for industrial Fluid-Structure Interactions (Member of the advisory committee and jury. Thesis defended, March 2014.).
- K. Chodzyski (UMONS): Study and development of an in vitro technology for testing vascular tissue submitted to physiological pulsatile flow conditions (Member of the advisory committee and jury. Thesis defended, December 2013.).

Commissions of trust

I am regularly solicited to perform peer review in international journals and conferences.

Scientific reviewing for conferences

- ASME-turbo expo conference
- Eurotherm conference
- Icone "International Conference on Nuclear Engineering"
- European Turbomachinery conference (ETC)

Journal papers

- International journal for numerical methods in fluids
- Journal of fuel
- Computers and fluids
- Physics of fluids

- Nuclear engineering and design
- Fluid Dynamics Research
- Power and energy
- AIAA journal
- International Journal of Turbomachinery, Propulsion and Power
- Applied Energy
- Physical Review Letters
- Journal of industrial aerodynamics

Project fundings

- Evaluation of a research project for the STW "Technologiestichting", the Netherlands.
- Evaluation of research projects for the ANR, France.
- Evaluation of Prace HPC projects.
- Referee for FRIA-FNRS member of the FRIA jury.

Research projects performed at UCLouvain

Significant involvement (scientific research, reporting and administrative tasks) in the following research projects:

- *FAR-WAKE*: fundamental research on aircraft wake phenomena. *FAR-WAKE* is a project of the 6th FrameWork Programme of the European Commission.
- *FIDELIO*: fiber laser development for next generation LIDAR onboard detection system. *FIDELIO* is a project of the 6th FrameWork Programme of the European Commission.
- *LASEF*: Belgian government funded project. Development and simulation of a ground based airport LIDAR to perform remote sensing of aircraft wake vortices and wind.
- *NANOCOMPO*: Belgian government funded project. Numerical evaluation of the heat transfert enhancement using nanofluids.
- *CREDOS*: Crosswind - Reduced Separations for Departure Operations. *CREDOS* is a project of the 6th FrameWork Programme of the European Commission and coordinated by EUROCONTROL.
- *SINUS*: *SINUS* is a set of project funded by the "Région Wallonne" of Belgium and the European FEDER funds. This applied research project aims to realize activities related to the development of "state of the art" numerical methods.
- *GREENWAKE*: Project funded by the European commission (FP7). The Green-Wake project is a collaborative project funded by the European Commission which will develop and test an on-board short-range (50-100m) Imaging Doppler LIDAR system that is capable of detecting and measuring wake vortexes and wind shear phenomena in front of an aircraft.
- *THINS*: Project funded by the European commission (FP7). Development of new models for GEN IV nuclear reactors thermalhydraulics. Main task consist in direct numerical simulation (DNS) of turbulent channel flows at very low Prandtl numbers for sodium, lead, lead-bismuth reactors. The DNS databases obtained will help to improve and calibrate RANS models.
- *HOLLYWOOD*: Belgian government funded project. Numerical simulation of fluid flow and combustion in domestic stoves.

Industrial research contracts at UCLouvain

- WIDAO: Wake-Independent Departure and Arrival Operations at Paris, Ch. De Gaulle. Subcontracting project with Eurocontrol .
- Research contract funded by Airbus (High-Lift Devices Skill Group Aerodynamics Domain): Large eddy simulation of the transport and decay of aircraft wake vortices in ground effect with turbulent crosswind .
- Research contract with Fluxys: development of a software to normalize gaz concentration measurements.
- Engineering contract for the monitoring and maintenance of the expert system ventilating the Cointe and Beliard tunnels.

Research projects at UMONS

- Federal grant: **BeHyFe** Belgian Hydrogen fundamental expertise: Large Eddy Simulations of fuel blends in industrial gas turbine combustion chamber, with Prof. J. Blondeau.
- Prace project **WIMPY**: grant of 24.8 MCPUh on the Irène Joliot-Curie Supercomputer in 2020-2021. Collaboration with Siemens Gamesa wind turbines and INSA-Rouen. Topic: Large Eddy Simulation of wind turbine wakes.
- Federal grant: **BEST** Belgian Energy System: The contribution of electro- and synthetic energy carriers to the security of supply, with Prof. W. De Paepe.
- Walloon government: **Pole Mecatech-POPE** Prédiction opérationnelle pour le petit éolien.
- **FRIA** grant obtained for Nicolas Coudou october 2016.
- **FRIA** grant obtained for Orkun Temel october 2015.
- Engie-Electrabel: **Free**, Flexible energy vectors of the future (VUB-UCLouvain-ULB-UMONS).
- Engie-Electrabel: **Small wind turbines**, numerical simulation of small wind turbines in a built environment (UCLouvain-UMONS project).

Institutional responsibilities

- Active member of the faculty council, polytechnic faculty, UMONS.
- Secretary of the mechanical engineering department board, polytechnic faculty, UMONS (2012-2020).
- Evaluator for the engineering entrance exam (algebra, analysis), polytechnic faculty, UMONS.
- Member of the selection committee for an academic position in heat transfer and combustion at UMONS.

Scientific stays

- Extreme CFD workshop 6 (2 weeks, Caen, France with INSA-Rouen, Cerfacs, LEGI Grenoble, GENCI, Safran) February 2023.
- Extreme CFD workshop 5 (1 week, Caen, France with INSA-Rouen, Cerfacs, LEGI Grenoble, GENCI, Safran) February 2022.
- Extreme CFD workshop 3 (1 week, Autrans, France, with INSA-Rouen, Cerfacs, LEGI Grenoble, GENCI, Safran) February 2022.
- Invited researcher at INSA-Rouen, CORIA, France (october 2018), FNRS travel grant.

- Invited researcher at TU Delft, Netherlands (november 2016), FNRS travel grant.
- Invited researcher at ETS Montréal, Canada (july 2014), FNRS travel grant.

Conference organisation

1. Co-organizer of Energy Transition workshop, Université Libre de Bruxelles, Belgium, March 2017.
2. Co-organizer of CLEAN-Gas Combustion Summer School, June 26th-29th 2017, Université Libre de Bruxelles, Belgium.
3. Principal organizer of the 25th workshop Belgian Section of the Combustion Institute, 15-16 May 2018, UMONS, Belgium.

Hobbies

Skiing, snowboarding, all terrain biking, outboard motorboat, swimming, trail, running Marathons and half-Marathons.

Bibliography

Journal papers

1. A. Verhaeghe, L. Dubois, L. Bricteux, D. Thomas, J. Blondeau, W. De Paepe, Carbon Capture Performance Assessment Applied to Combined Cycle Gas Turbine Under Part-Load Operation, *Journal of Engineering for Gas Turbines and Power* (2022).
2. Large eddy simulation investigation of pressure and wall heat loss effects on rich ammonia-hydrogen-air combustion in a gas turbine burner, K. Bioche, J. Blondeau, L. Bricteux, *International Journal of Hydrogen Energy* (2022).
3. M Coquelet, L Bricteux, M Moens, P Chatelain, A reinforcement learning approach for individual pitch control, *Wind Energy* (2022).
4. On the Need for Turbulence Chemistry Interaction Modelling in Highly Resolved Large-Eddy Simulations of Mild Combustion M. Cordier, P. Bénard, P. Lybaert, W. De Paepe, L. Bricteux, *Flow, Turbulence and Combustion* (2021).
5. K. Bioche, L. Bricteux, A. Bertolino, A. Parente, J. Blondeau, Large Eddy Simulation of rich ammonia/hydrogen/air combustion in a gas turbine burner, *International Journal of Hydrogen Energy* (2021).
6. A. Pappa, L. Bricteux, P. Bénard, W. De Paepe, Can water dilution avoid flashback on a hydrogen-enriched micro-gas turbine combustion? A large eddy simulations study, *Journal of Engineering for Gas Turbines and Power* (2021).
7. M. Coquelet, L. Bricteux, M. Lejeune, P. Chatelain, Biomimetic individual pitch control for load alleviation, *Journal of Physics: Conference Series* (2020)
8. S. Zeoli, G. Balarac, P. Bénard, G. Georis, F. Houtin-Mongrolle, L. Bricteux, Large eddy simulation of wind turbine wakes using adaptative mesh refinement, *Journal of Physics: Conference Series* (2020)
9. F. Houtin-Mongrolle, P. Bénard, V. Moureau, G. Lartigue, L. Bricteux, Actuator grid method for turbulence generation applied to yawed wind turbines *Journal of Physics: Conference Series* (2020)
10. F. Houtin-Mongrolle, L. Bricteux, P. Bénard, G. Lartigue, V. Moureau, Actuator line method applied to grid turbulence generation for large-Eddy simulations, *Journal of Turbulence* 21 (8), 407-433 (2020).
11. W. De Paepe, A. Pappa, M.M. Carrero, L. Bricteux, F. Contino Reducing waste heat to the minimum: Thermodynamic assessment of the M-power cycle concept applied to micro Gas Turbines *Applied Energy* 279 (2020).
12. S. Giorgetti, D. Coppitters, F. Contino, W. De Paepe, L. Bricteux, G. Aversano, A. Parente, Surrogate-Assisted Modeling and Robust Optimization of a micro Gas Turbine Plant with Carbon Capture, *Journal of Engineering for Gas Turbines and Power*, 142, GTP-19-1326 (2019)
13. S. Giorgetti, A. Parente, L. Bricteux, F. Contino, W. De Paepe, Optimal design and operating strategy of a carbon-clean micro gas turbine for combined heat and power applications, *International Journal of Greenhouse Gas Control*, 88, 469-481 (2019)
14. P. Benard, A. Viré, V. Moureau, G. Lartigue, L. Beaudet, P. Deglaire, L. Bricteux, Large-Eddy Simulation of wind turbines wakes including geometrical effects, accepted for publications in *Computers and fluids*, (2018).
15. O. Temel, L. Bricteux, J. van Beeck, Coupled WRF-OpenFOAM study of wind flow over complex terrain, *Journal of Wind Engineering & Industrial Aerodynamics*, (2018).
16. L. Bricteux, S. Zeoli, N. Bourgeois, Validation and scalability of an open source parallel flow solver, *Concurrency and Computation: Practice and Experience* (2017).

17. O. Temel, S. Porchetta, L. Bricteux, J. Van Beeck, RANS closures for non-neutral microscale CFD simulations sustained with inflow conditions acquired from mesoscale simulations, *Applied Mathematical Modelling*, (2017).
18. S. Giorgetti, L. Bricteux, A. Parente, J. Blondeau, F. Contino, W. De Paepe, Carbon capture on micro gas turbine cycles: Assessment of the performance on dry and wet operations, *Applied Energy*, (2017).
19. N. Coudou, S. Buckingham, L. Bricteux J. Van Beeck, Experimental study on the wind-farm wake meandering in an atmospheric-boundary-layer wind tunnel, *Boundary layer meteorology* (2017).
20. C. De Maesschalk, C. Lacor, G. Paniagua, S. Lavagnoli, A. Remiot, L. Bricteux, Performance Robustness of Turbine Squealer Tip Designs due to Manufacturing and Engine Operation, *Journal of propulsion and power* (2016).
21. L. Bricteux, M. Duponcheel, I. De Visscher, G. Winckelmans, LES investigation of the transport and decay of various-strengths wake vortices in ground effect and subjected to a turbulent crosswind, *Physics of Fluids* (2016).
22. K. Chodzynski, K. Zouaoui Boudjeltia, J. Lalmand, A. Aminian, L. Vanhamme, D. Ribeiro de Sousa, S. Gremmo, L. Bricteux, C. Renotte, G. Courbebaisse, G. Coussement, An in vitro test bench reproducing coronary blood flow signals, *BioMedical Engineering OnLine* (2015).
23. C. Carton de Wiart, K. Hillewaert, L. Bricteux, G. Winckelmans, Implicit LES of free and wall bounded turbulent flows based on the discontinuous Galerkin/symmetric interior penalty method, *International Journal for Numerical Methods in Fluids* (2015).
24. M. Duponcheel, L. Bricteux, M. Manconi, G. Winckelmans, Y. Bartosiewicz Assessment of RANS and improved near-wall modeling for forced convection at low Prandtl numbers based on LES up to $Re_\tau = 2000$, *International journal of heat and mass transfer* (2014).
25. I. De Visscher, L. Bricteux, G. Winckelmans Aircraft vortices in stably stratified and weakly turbulent atmospheres: simulation and modeling, *American Institute of Aeronautics and Astronautics (AIAA) Journal* (2013).
26. L. Bricteux, M. Duponcheel, G. Winckelmans, I. Tiselj and Y. Bartosiewicz Direct and large eddy simulation of turbulent heat transfer at very low Prandtl number: Application to lead-bismuth flows, *Nuclear Engineering and Design* (2012).
27. H. Jeanmart, L. Bricteux, K. Van Tichelen and M. Dierckx, Characterization in water experiments of a "detached flow free surface spallation target, *Journal of Nuclear Materials* (2011).
28. K. Dengler, F. Holzapfel, T. Gerz, A. Wiegele, I. De Visscher, G. Winckelmans, L. Bricteux, H. Fischer and J. Konopka, Crosswind thresholds supporting wake-vortex-free corridors for departing aircraft, *Journal of meteorological applications, Royal meteorology society* (2011).
29. L. Bricteux, M. Duponcheel, G. Winckelmans, A new multiscale model for both free vortex flows and wall bounded flows, *Physics of Fluids* (2009).
30. R. Cocle, L. Bricteux, G. Winckelmans, Scale-dependence and asymptotic very high Reynolds number behavior of multiscale subgrid models, *Physics of Fluids* (2009).
31. A. Dolfi-Bouteyre, G. Canat, M. Valla, B. Augère, C. Besson, D. Goular, L. Lombard, JP. Cariou, A. Durecu, D. Fleury, L. Bricteux, S. Brousmiche, S. Lugan, B. Macq, Pulsed $1.5 \mu m$ LIDAR for axial aircraft wake vortex detection based on high brightness large core fiber amplifier, *IEEE journal of selected topics in quantum electronics* (2009).

Contributed books

1. J.S. Cagnone, Z. Zeren, A. Chatel, M. Rasquin, K. Hillewaert, L. Bricteux, Assessment of High-Order Discontinuous Galerkin Methods for LES of Transonic Flows, in *Direct and Large-Eddy Simulation XI book, ERCOFTAC Series*, Springer, 2018.

2. S. Zeoli, C. Carton De Wiart, K. Hillewaert, B. Colassin, L. Bricteux, DNS and ILES of wall bounded flows using a discontinuous galerkin method and inlet synthetic turbulence, in Direct and Large-Eddy Simulation X book, ERCOFTAC Series, Springer, 2018
3. C. Carton de Wiart, K. Hillewaert, L. Bricteux, G. Winckelmans, LES using a discontinuous Galerkin method: isotropic turbulence, channel flow and periodic hill flow In Direct and Large-Eddy Simulation IX book, ERCOFTAC Series, Springer, 2013.
4. S. Brousmiche, L. Bricteux, G. Winckelmans, B. Macq, P. Sobieski, Modeling of wake-vortex detection by a ground-based fiber LIDAR system In: Advances in Geoscience and Remote Sensing, IN-TECH book.
5. L. Bricteux, M. Duponcheel, G. Winckelmans, A new multiscale model with proper behaviour in both vortex flows and wall bounded flows in Direct and Large-Eddy Simulation VII book, ERCOFTAC Series, ed(s), V. Armenio, B. Geurts and J. Frolich, ed(s), Springer, 2010, 12, p. 253-258..
6. R. Cocle, L. Bricteux, G. Winckelmans, Spectral behavior of various subgrid-scale models in LES at very high Reynolds number In: Quality and Reliability of Large-Eddy Simulations, ERCOFTAC Series, J. Meyers, B.J. Geurts and P. Sagaut ed(s), Springer, 2008, 12, p. 183-190.
7. G. Winckelmans, L. Bricteux, L. Georges,
The Sampling-based dynamic procedure for LES without filtering:
validation using finite differences.
In: Direct and Large-Eddy Simulation VI, ERCOFTAC Series, E. Lamballais, R. Friedrich, B.J. Geurts and O. Métais ed(s), Springer, 2006, 10, p. 183-190.
8. M. Tournour, J.P. Rossion, L. Bricteux, C. McCulloch, I. McGan.
Accelerating FEM and BEM acoustic solutions
In: Modelling and Experimental Measurements in Acoustics III.
Computational and Experimental Methods Vol 9 WIT press (2003). Edited by: D. Almorza, C.A. Brebbia, R. Hernandez.

Conference proceedings with peer review

1. A. Pappa, L. Bricteux, P. Bénard, W. De Paepe, Can Water Dilution Avoid Flashback on a Hydrogen Enriched Micro Gas Turbine Combustion? A Large Eddy Simulation Study, Turbo Expo: Power for Land, Sea, and Air, London, UK, 2020.
2. M. Cordier, A. Pappa, P. Bénard, P. Lybaert, V. Feldheim, L. Bricteux, Simulation aux grandes échelles de la combustion diluée dans un four de 30kW in SFT 2020 28ème colloque francais de thermique , Belfort, France (2020).
3. W. De Paepe, M. Montero Carrero, A. Pappa, L. Bricteux, F. Contino, "Humidified Micro Gas Turbine for Range Extended Electric Vehicles: Thermodynamic Performance Assessment" in "ASME Turbo Expo 2019: Turbomachinery Technical Conference and Exposition" , GT2019-91389, V003T06A016, Phoenix, AZ, USA (2019).
4. S. Giorgetti, D. Coppitters, F. Contino, W. De Paepe, L. Bricteux, G. Aversano, A. Parente, "Surrogate-Assisted Modeling and Robust Optimization of a Micro Gas Turbine Plant With Carbon Capture" in "ASME Turbo Expo 2019: Turbomachinery Technical Conference and Exposition" , GT2019-91400, V003T06A017, Phoenix, AZ, USA (2019).
5. S. Giorgetti, A. Parente, L. Bricteux, F. Contino, W. De Paepe, Carbon Clean Combined Heat and Power Production from micro Gas Turbines: Thermodynamic Analysis of Different Scenarios, The 9th International Conference on Applied Energy, ICAE2017 Cardiff, UK (published in Energy Procedia, 142, 1622-1628) (2018).
6. S. Giorgetti, W. De Paepe, L. Bricteux, A. Parente, Contino francesco, Carbon Capture on a Micro Gas Turbine: Assessment of the Performance, The 8th International Conference on Applied Energy, ICAE2016 Beijing, China (published in Energy Procedia, 105, 4046-4052) (2017).

7. A. Viré, T. Coudou, K. Navaneetha, L. Bricteux, R. Schmehl, Direct Numerical Simulations of Flow Past a Leading-Edge Inflatable Wing, Airborne Wind Energy Conference, Freiburg , Germany (2017).
8. P. Bénard, L. Bricteux, V. Moureau, G. Lartigue, L. Beaudet, R. Laine, A. Viré, Highly resolved Large-Eddy Simulation of wind turbine wakes, ECCOMAS Young Investigators Conference , Milan, Italy (2017).
9. S. Zeoli, L. Bricteux, C. Gorlé, RANS Turbulence Model Form Uncertainty Quantification for the flow around a wall-mounted cube, European-African Conference on Wind Engineering 2017, Liège, Belgium (2017).
10. P. Bénard, L. Bricteux, V. Moureau, G. Lartigue, L. Beaudet, R. Laine, A. Viré, Highly resolved Large-Eddy Simulation of wind turbine wakes, Wind Energy Science Conference, Lyngby, Denmark (2017).
11. V. Dias, S. Giorgetti, M. Pochet, S. Bram, L. Bricteux, S. Verhelst, J. Blondeau, H. Jeanmart, F. Contino, A. Parente, Contribution of chemical storage to the future energy networks, in 2nd Renewable Energy Sources - Research and Business RESRB 2017 conference, wroclaw, Poland (2017).
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