

ANSELMO PEREIRA

Ph.D., Mechanical Engineer, Rheologist/Soft Matter Scientist



PERSONAL RECORD

Name: PEREIRA, Anselmo
Laboratory: Centre de mise en forme des matériaux, MINES ParisTech, PSL University
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Date and place of birth: 18 August 1984 - Vitória – Brazil
Web site: <https://anselmopereira.net/>

SUMMARY (SCIENTIFIC PRODUCTION)

Peer-Reviewed Publications: 20
Submitted articles: 2
Articles in preparation: 3
Conference articles: 14
Book chapters: 2
Conferences and seminars: 18

EDUCATION and CAREER

2020-now **Tenure Track** - *Centre de mise en forme des matériaux (CEMEF)*, MINES ParisTech, Université Paris Sciences et Lettres (PSL), France.
2017-2020 **Postdoctoral Research Fellow** - *Centre de mise en forme des matériaux (CEMEF)*, MINES ParisTech, Université Paris Sciences et Lettres (PSL), France.
Grant 1 : Paris Sciences et Lettres - **Grant 2 : CFL research team**
2012-2016 **PhD in Fluid Mechanics** - Laboratoire de Mécanique de Lille, *École Polytechnique Universitaire de Lille, Université de Lille 1 - Sciences et Technologie*, France : *Transient aspects of the polymer induced drag reduction phenomenon* (thesis director : Professor Gilmar Mompean).
2009-2012 **M.Sc. in Mechanical Engineering** - Rheology Laboratory (LabReo), *Universidade Federal do Espírito Santo*, Brazil.
2005-2009 **B.Sc. in Mechanical Engineering** - *Universidade Federal do Espírito Santo*, Brazil.

TEACHING EXPERIENCE

2018-2020 **Teaching Assistant**, MINES ParisTech
“Fluid Dynamics” 2nd year Engineering students at Mines ParisTech
2017-2020 **Teaching Assistant**, CEMEF - MINES ParisTech
“Numerical Methods in Fluid Mechanics” for MS and PhD students
2013-2016 **Teaching Assistant (vacataire)**, Department of Mechanical Engineering, *École Polytechnique Universitaire de Lille*, France - B.Sc. course “Fundamentals of Fluid Mechanics” (*Mécanique des Fluides*) and “Numerical Methods in Fluid Mechanics” (*Mécanique des Fluides Numérique*).
2012 **Assistant professor**, Department of Mechanical Engineering, *Universidade Federal do Espírito Santo*, Brazil - B.Sc. course “Fundamentals of Fluid Dynamics” and “Fundamentals of Petroleum Engineering”.

SCIENTIFIC COLLABORATION and INDUSTRIAL RESEARCH - 7

- 2020-now **Nestlé** – “Modelling the rheological response of fiber-filled materials”.
- 2019-now **ArcelorMittal** – “Controlled cooling of hot plates using water jets”.
- 2019-now **Corning** – “Controlled heat transfer along a stretched molten glass filament”.
- 2018-now **University of Cambridge** – “Breakup of stretched yield-stress fluids” (with Dr. Malcolm Mackley and Dr. Simon Butler).
- 2019-now **École Supérieure de Physique et de Chimie Industrielles de la ville de Paris (ESPCI)** – “Reactive impacts : droplets of complex fluids impacting and gelling on a liquid bath” (with Dr. Cécile Monteux and Dr. Etienne Barthel).
- 2019-now **Université Grenoble Alpes** – “Container filling regimes with yield stress fluids” (with Dr. Albert Magnin and Dr. Emeline Talansier).
- 2017-2018 **Ariane Group** – “Modelling of propellant jets” (with Dr. Elisabeth Lemaire – Université Côte d’Azur).

AWARDS AND ACHIEVEMENTS

- 2019-présent **2nd Round ANR selected project: Impact of non-Newtonian drops on liquids « INNpact » - Appel à Projet Générique 2020 de l’ANR (ANR - JCJC)**
- 2018 **CNRS Finalist** - Competitive Examinations for Researcher Positions in the CNRS (*Centre National de la Recherche Scientifique*, France) - Section 10.
- 2017 **Thesis Award - French Group of Rheology** (*Le prix de thèse du Groupe Français de Rhéologie*)
- 2017 **Scientific Grant** - Postdoctoral financial support - *Université Paris Sciences et Lettres* (France)
- 2016-2018 **Scientific Grant** - Resource hours at IDRIS (*Institut du développement et des ressources en informatique scientifique*, France), GENCI projet i20162a2277 (with Dr. Gilmar Mompean, Politech’Lille, France)
- 2015-2016 **Scientific Grant** - Resource hours at IDRIS (*Institut du développement et des ressources en informatique scientifique*, France), GENCI projet i20152b2277 (with Dr. Laurent Thais, Politech’Lille, France)
- 2014-2015 **Scientific Grant** - Resource hours at IDRIS (*Institut du développement et des ressources en informatique scientifique*, France), GENCI projet 2014-i20142b2277 (with Dr. Laurent Thais, Politech’Lille, France)
- 2013-2016 **Scientific Grant** - PhD financial support attributed by the “*Science Without Borders*” Program managed by the *Brazilian Research Council*, CNPq (Brazil/France)
- 2010-2012 **Scientific Grant** - M.Sc. financial support attributed by the *Brazilian National Agency for Petroleum, Natural Gas and Biofuels*, ANP (Brazil)
- 2008-2009 **Scientific Grant** - B.Sc. financial support attributed by the *Brazilian National Agency for Petroleum, Natural Gas and Biofuels*, ANP (Brazil)

COMMITTEE MEMBER

- 2017 Member of the [French Group of Rheology \(GFR\)](#).
- 2017 Member of the [European Society of Rheology \(ESR\)](#).
- 2016 Member of the local committee of the *51ème Congrès Annuel du Groupe Français de Rhéologie - École Polytechnique Universitaire de Lille* (25-27/10/2016).
- 2016 Member of the scientific committee of the « *16th Brazilian Congress of Thermal Sciences and Engineering* » (07-10/11/2016).

REVIEWER

- 2020 [International Journal of Industrial Chemistry](#).
- 2020 [Engineering Reports](#).
- 2019 [Journal of Non-Newtonian Fluid Mechanics](#).
- 2019 [Computers & Fluids](#).
- 2019 [AIChE Journal](#).
- 2019 [Ocean Engineering](#).
- 2018 [The Canadian Journal of Chemical Engineering](#)
- 2018 [Physics of Fluids](#).
- 2018 [Journal of the Brazilian Society of Mechanical Sciences and Engineering](#).
- 2017 [Polymers](#).

PEER-REVIEWED PUBLICATIONS - 20

- 2020 **Valette, R., Pereira, A. S., Riber, S., Sardo, L., Hachem, E.** Viscoplastic dam-breaks. Under review for *Journal of Non-Newtonian Fluid Mechanics*.
- 2020 **Pereira, A.S., Valette, R., Hachem, E.,** Inertia-dominated coiling instabilities of power-law fluids. Accepted for publication in *Journal of Non-Newtonian Fluid Mechanics* - **[invited paper](#)**.
- 2019 **Pereira, A.S., Thompson, R. L., Mompean, G.** Common features between the Newtonian laminar-turbulent transition and the viscoelastic drag-reducing turbulence. *Journal of Fluid Mechanics*, 877, 405-428 (2019).
- 2019 **Pereira, A.S., Larcher, A., Hachem, E., Valette, R.** Capillary, viscous, and geometrical effects on the buckling of power-law fluid filaments under compression stresses. *Computers & Fluids*, 190, 514-519 (2019).
- 2019 **Valette, R., Hachem, E., Khalloufi, M., Pereira, A.S., Mackley, M.R., Butler, S.A.** The effect of viscosity, yield stress, and surface tension on the deformation and breakup profiles of fluid filaments stretched at very high velocities. *Journal of Non-Newtonian Fluid Mechanics* 263, 130-139 (2019).
- 2018 **Pereira, A.S., Mompean, G., Soares, E.J.** Modeling and numerical simulations of polymer degradation in a drag reducing plane Couette flow. *Journal of Non-Newtonian Fluid Mechanics* 256, 1-7 (2018).

- 2017 **Pereira, A.S., Mompean, G., Thompson, R.L., Soares, E.J.** Elliptical, parabolic, and hyperbolic exchanges of energy in drag reducing plane Couette flows. *Physics of Fluids* 29, 110156-1--110156-21 (2017).
- 2017 **Pereira, A.S., Mompean, G., Thais, L., Soares, E.J., Thompson, R.L.** Active and hibernating turbulence in drag-reducing plane Couette flow. *Physical Review Fluids* 2, 084605-1--084605-14 (2017).
- 2017 **Pereira, A.S., Mompean, G., Thais, L., Thompson, R.L.** Statistics and tensor analysis of polymer coil-stretch mechanism in turbulent flows. *Journal of Fluid Mechanics* 824, 135-173 (2017).
- 2017 **Pereira, A.S., Mompean, G., Thais, L., Soares, E.J.** Transient aspects of drag reducing plane Couette flows. *Journal of Non-Newtonian Fluid Mechanics* 241, 60-69 (2017).
- 2016 **Martins, R.S., Pereira, A.S., Mompean, G., Thais, L., Thompson, R.L.** An objective perspective for classic flow classification criteria. *Comptes Rendus Mécanique* 344, 52-59 (2016).
- 2016 **Andrade, R.M., Pereira, A.S., Soares, E.J.** Drag reduction in synthetic seawater by flexible and rigid polymer addition into a rotating cylindrical double gap device. *Journal of Fluid Engineering* 138, 021101-1--021101-10 (2016).
- 2016 **Pereira, A.S., Martins, R.S., Mompean, G., Thais, L., Thompson, R.L.** On the Extension of Polymer Molecules in Turbulent Viscoelastic Flows: Statistical and Tensor Investigation. In: *Michel Stanislas; Javier Jimenez; Ivan Marusic. (Org.). ERCOFTAC Series. 1ed.: Springer International Publishing* 23, 171-180 (2016).
- 2016 **Matins, R.S., Pereira, A.S., Mompean, G., Thais, L., Thompson, R.L.** On Objective and Non-objective Kinematic Flow Classification Criteria. In: *Michel Stanislas; Javier Jimenez; Ivan Marusic. (Org.). ERCOFTAC Series. 1ed.: Springer International Publishing* 23, 419-428 (2016).
- 2015 **Pereira, A.S., Martins, R.S., Mompean, G. Thais, L., Thompson, R.L.** Analyses statistiques et tensorielles de l'étirement des polymères dans les écoulements viscoélastiques turbulents en canal plan. *Rhéologie* 27, 34-42 (2015).
- 2015 **Sandoval, G.A.B., Silva, R.T., Soares, E.J., Silva, L.A.S., Thomaz, F., Pereira, A.S.** Polymer degradation in turbulent drag reducing flows in pipes. *Thermal Engineering* 14, 3-8 (2015).
- 2015 **Soares, E.J., Sandoval, G.A.B., Silva, L.A.S., Pereira, A.S., Silva, R.T., Thomaz, F.** Loss of efficiency of polymeric drag reducers by high Reynolds number flows in tubes with imposed pressure. *Physics of Fluids* 27, 125105-1--125105-23 (2015).
- 2014 **Andrade, R.M., Pereira, A.S., Soares, E.J.** Drag increase at the very start of drag reducing flows in a rotating cylindrical double gap device. *Journal of Non-Newtonian Fluid Mechanics* 212, 73-79 (2014).
- 2013 **Pereira, A.S., Andrade, R.M., Soares, E.J.** Drag reduction induced by flexible and rigid molecules in a turbulent flow into a rotating cylindrical double gap device: Comparison between poly(ethylene oxide), polyacrylamide, and xanthan gum. *Journal of Non-Newtonian Fluid Mechanics* 202, 72-87 (2013).
- 2012 **Pereira, A.S., Soares, E.J.** Polymer degradation of dilute solutions in turbulent drag reducing flows in a cylindrical double gap rheometer device. *Journal of Non-Newtonian Fluid Mechanics* 179, 9-22 (2012).

SUBMITTED ARTICLES - 2

- 2020 **Pereira, A.S. Valade, N. Hachem, E. Valette, R.** Folding instabilities in non-Newtonian viscous sheets: shear thinning and shear thickening effects. Submitted to *Physics of Fluid*.
- 2020 **Pereira, A.S., Thompson, R. L., Mompean, G.** Beyond the maximum drag reduction asymptote: the pseudo-laminar state. Submitted to *Journal of Fluid Mechanics*.

ARTICLES IN PREPARATION - 3

- 2020 **Pereira, A. S., Valette, R., Hachem, E., Talansier, E., Magnin, A.** Viscoplastic Packaging. To be submitted to *Journal of Fluid Mechanics*.
- 2020 **Pereira, A.S. Castellani, R. Meliga, P. Hachem, E. Valette. R.** Buckling of Newtonian fluid filaments under compression stresses: geometrical, capillary, viscous and inertial effects. To be submitted to *Journal of Fluid Mechanics*.
- 2020 **Pereira, A.S. Godefroid, J., Bouttes, D., Barthel, E., Monteux C., Valette, R.** Maximum spreading of Newtonian and viscoplastic drops impacting on solid surfaces. To be submitted to *Physical Review Fluids*.

CONFERENCE ARTICLES - 14

- 2017 **Pereira, A.S., Castellani, R., Antoniotti, A., Valette, R.** Analyse numérique des instabilités de flambage dans un fluide rhéoépaississant. *23ème Congrès Français de Mécanique [CFM2017]*, Aug. 2017, Lille, France (2017).
- 2016 **Pereira, A.S., Mompean, G., Thais, L., Soare, E.J.** Numerical analysis of the developing time in turbulent drag reducing plane Couette flows. *16th Brazilian Congress of Thermal Sciences and Engineering*, Vitória-ES, Brazil, 1-8 (2016).
- 2016 **Silva, R.T., Soares, E.J., Siqueira, R., dos Santos, L., Pereira, A.S., Campos, A.A.S.** Drag reduction in nutrient solution: effect of different polymers, concentration and degradation. *16th Brazilian Congress of Thermal Sciences and Engineering*, Vitória-ES, Brazil, 1-7 (2016).
- 2014 **Pereira, A.S., Martins, R.S., Mompean, G., Thais, L., Thompson, R.L.** On the extension of polymer molecules in turbulent viscoelastic flows: statistical and tensor investigation. *Workshop Progress in wall turbulence: understanding and modelling*, Villeneuve d'Ascq, France, 1-10 (2014).
- 2014 **Pereira, A.S., Martins, R.S., Mompean, G., Thais, L., Thompson, R.L.** On objective and non-objective kinematic flow classification criteria, *Workshop Progress in wall turbulence: understanding and modelling*, Villeneuve d'Ascq, France, 1-10 (2014).
- 2014 **Pereira, A.S., Martins, R.S., Mompean, G., Thais, L., Thompson, R.L.** Analyses statistiques et tensorielles de l'étirement des polymères dans les écoulements visco-élastiques turbulents en canal plan. *49ème Congrès Annuel du Groupe Français de Rhéologie*, Grenoble, France, 1-10 (2014).
- 2014 **Pereira, A.S., Martins, R.S., Mompean, G., Thais, L., Thompson, R.L.** Interactions entre les structures cohérentes et les polymères dans les écoulements visco-élastiques turbulents en canal plan. *49ème Congrès Annuel du Groupe Français de Rhéologie*, Grenoble, France, 1-10 (2014).
- 2014 **Sandoval, G.A.B., Silva, R.T., Silva, L.A.S., Thomaz, F., Pereira, A.S. Soares, E.J.** Degradation of flexible polymers in turbulent drag reducing flows in pipes, *Rio Oil & Gas 2014*, Rio de Janeiro, Brazil, 1-9 (2014).
- 2014 **Sandoval, G.A.B., Silva, R.T., Soares, E.J., Silva, L.A.S., Thomaz, F., Pereira, A.S.** Redução de arrasto e degradação de polímeros flexíveis em escoamentos turbulentos em dutos, *Congresso Nacional de Engenharia Mecânica 2014 (CONEM 2014)*, Uberlândia - MG, Brazil, 1-7 (2014).

- 2013 **Martins, R.S., Pereira, A.S., Mompean, G., Thais, L., Thompson, R.L.** Critères d'identification des structures cohérentes appliqués aux écoulements visco-élastiques turbulents dans un canal plan. *48ème Congrès Annuel du Groupe Français de Rhéologie*, Nantes, France, 1-10 (2013).
- 2013 **Pereira, A.S., Andrade, R.M., Soares, E.J.** Drag reduction induced by flexible and rigid molecules in a turbulent flow into a rotating cylindrical double gap device: Comparison between Poly(ethylene oxide), Polyacrylamide, and Xanthan Gum. *22nd International Congress of Mechanical Engineering (COBEM 2013)*, Ribeirão Preto, Brazil, 1-10 (2013).
- 2013 **Andrade, R.M., Pereira, A.S., Soares, E.J.** Drag reduction into a rotating cylindrical double gap device by polymer addition: Effect of Reynolds number, concentration, temperature and different polymers at the very beginning of the test. *22nd International Congress of Mechanical Engineering (COBEM 2013)*, Ribeirão Preto, Brazil, 1-10 (2013).
- 2012 **Pereira, A.S., Soares, E.J.** Polymer degradation of dilute solutions in turbulent drag reducing flows in a cylindrical double gap rheometer device. *VII Congresso Nacional de Engenharia Mecânica (CONEM 2012)*, São Luís do Maranhão, Brazil, 1-9 (2012).
- 2011 **Pereira, A.S., Soares, E.J.** Experimental analysis of temperature effects on drag reduction by polymer additives. *21nd International Congress of Mechanical Engineering (COBEM 2011)*, Natal, Brazil, 1-8 (2011).

BOOK CHAPTERS - 2

- 2016 **Pereira, A.S., Martins, R.S., Mompean, G., Thais, L., Thompson, R.L.** On the Extension of Polymer Molecules in Turbulent Viscoelastic Flows: Statistical and Tensor Investigation. *In: Michel Stanislas; Javier Jimenez; Ivan Marusic. (Org.). ERCOFTAC Series. 1ed.: Springer International Publishing 23*, 171-180 (2016).
- 2016 **Martins, R.S., Pereira, A.S., Mompean, G., Thais, L., Thompson, R.L.** On Objective and Non-objective Kinematic Flow Classification Criteria. *In: Michel Stanislas; Javier Jimenez; Ivan Marusic. (Org.). ERCOFTAC Series. 1ed.: Springer International Publishing 23*, 419-428 (2016).

CONFERENCES and SEMINARS - 18

- 2019 **Pereira, A.S., Castellani, R., Hachem, E., Valette, R.** Water entry of yield-stress droplets. *IWNMNNF 2019 (invited)*
- 2019 **Pereira, A.S., Castellani, R., Hachem, E., Valette, R.** Water entry of spherical yield-stress droplets. *54ème Congrès Annuel du Groupe Français de Rhéologie*, Montpellier, France (2019).
- 2019 **Pereira, A.S., Castellani, R., Hachem, E., Valette, R.** Water entry of yield-stress droplets. *AERC 2019*.
- 2018 **Pereira, A.S., Mompean, G., Thompson, R.L.** The universal nature of the Newtonian transition to turbulence and the viscoelastic drag reducing turbulence. *GDR phénoménologie de la turbulence*, October 16-18, Nice, France (2018)
- 2018 **Pereira, A.S., Castellani, R., Khalouffi, M., Hachem, E., Valette, R.** Buckling of viscoplastic fluid filaments under compression stresses. *13th World Congress on Computational Mechanics*, July 22-27, NY, USA (2018).
- 2018 **Pereira, A.S., Castellani, R., Khalouffi, M., Hachem, E., Valette, R.** Buckling of viscoplastic fluid filaments under compression stresses. *The Annual European Rheology Conference*, April 17-21, 2018, Sorrento, Italy (2018)

- 2018 **Pereira, A. S., Castellani, R., Khalloufi, M., Hachem, E., Valette, R.** Buckling of viscoplastic fluid filaments under compression stresses. *53ème Congrès Annuel du Groupe Français de Rhéologie*, Brest, France.
- 2017 **Pereira, A.S. (invited speaker)** The universal nature of the Newtonian transition to turbulence and the viscoelastic drag reducing turbulence. *Rencontre Niçoise de Mécanique des Fluides*, Nice, France (09/10/2017).
- 2017 **Pereira, A.S. (invited speaker - Prix de Thèse 2017)** Transient aspects of the polymer induced drag reduction phenomenon. *52ème Congrès Annuel du Groupe Français de Rhéologie*, Nice, France (29-31/10/2017)..
- 2016 **Pereira, A.S., Mompean, G., Thais, L., Soares, E.J.** Numerical analysis of the effects of the elasticity on the developing time in viscoelastic turbulent plane Couette flows. *51ème Congrès Annuel du Groupe Français de Rhéologie* (25-27/10/2017).
- 2016 **Pereira, A.S. (invited speaker)** Experimental and numerical analysis of the developing time in turbulent drag reducing flow. *Seminar - Laboratoire Ondes et Milieux Complexes - Université du Havre*, Havre, France (11/02/2016).
- 2015 **Pereira, A.S., Mompean, G., Thais, L. Soares, E.J.** Numerical simulation of turbulent drag reducing flows considering the effects of polymer degradation. *1st International Conference on Mechanics of Complex Solids and Fluids*, Villeneuve d'Ascq, France (17-22/05/2015).
- 2014 **Pereira, A.S., Martins, R.S., Mompean, G., Thais, L., Thompson, R.L.** Analyses statistiques et tensorielles de l'étirement des polymères dans les écoulements visco-élastiques turbulents en canal plan. *49ème Congrès Annuel du Groupe Français de Rhéologie*, Grenoble, France (27-29/10/2014).
- 2014 **Pereira, A.S., Mompean, G., Thais, L., Soares, E.J.** Analyses expérimentales et numériques des écoulements viscoélastiques turbulents prenant en compte les effets de dégradation du polymère. *7ème Journée des Doctorants du Domaine Mécanique, Génie Civil, Énergétique et Matériaux de l'EDSPI*, Villeneuve d'Ascq, France (24/06/2014).
- 2014 **Pereira, A.S., Martins, R.S., Mompean, G., Thais, L., Thompson, R.L.** On the extension of polymer molecules in turbulent viscoelastic flows: statistical and tensor investigation. *Workshop Progress in wall turbulence: understanding and modelling*, Villeneuve d'Ascq, France (18-20/06/2014).
- 2014 **Andrade R.M., Pereira, A.S., Soares, E.J.** Turbulent structures development in drag reducing flows from the start-up of a rotating double gap cylindrical device. *9th Annual European Rheology Conference (AERC 2014)*, Karlsruhe, Germany (08-11/04/2014).
- 2012 **Pereira, A.S. (invited speaker)** Analyse expérimentale de la dégradation polymérique en écoulement turbulent avec réduction de la traînée dans une géométrie rotative. *Seminar - Laboratoire de Mécanique de Lille, École Polytechnique Universitaire de Lille, Université de Lille 1 - Sciences et Technologie*, Villeneuve d'Ascq, France (11/2012).
- 2011 **Pereira, A.S., Soares, E.J.** Experimental analysis of temperature effects on drag reduction by polymer additives. *21st International Congress of Mechanical Engineering (COBEM 2011)*, Natal, Brazil (24-28/10/2011).

- 2019 **Pereira, A.S., Castellani, R., Hachem, E., Valette, R.** Water entry of yield-stress droplets. *IWNMNNF 2019 (invited)*
- 2018 **Pereira, A.S., Mompean, G., Thompson, R.L.** The universal nature of the Newtonian transition to turbulence and the viscoelastic drag reducing turbulence. *GDR phénoménologie de la turbulence*, October 16-18, Nice, France (2018)
- 2018 **Pereira, A.S., Castellani, R., Khalouffi, M., Hachem, E., Valette, R.** Buckling of viscoplastic fluid filaments under compression stresses. *13th World Congress on Computational Mechanics*, July 22-27, NY, USA (2018).
- 2018 **Pereira, A.S., Castellani, R., Khalouffi, M., Hachem, E., Valette, R.** Buckling of viscoplastic fluid filaments under compression stresses. *The Annual European Rheology Conference*, April 17-21, 2018, Sorrento, Italy (2018)
- 2016 **Pereira, A.S., Mompean, G., Thais, L., Soare, E.J.** Numerical analysis of the developing time in turbulent drag reducing plane Couette flows. *16th Brazilian Congress of Thermal Sciences and Engineering*, Vitória-ES, Brazil, 1-8 (2016).
- 2016 **Silva, R.T., Soares, E.J., Siqueira, R., dos Santos, L., Pereira, A.S., Campos, A.A.S.** Drag reduction in nutrient solution: effect of different polymers, concentration and degradation. *16th Brazilian Congress of Thermal Sciences and Engineering*, Vitória-ES, Brazil, 1-7 (2016).
- 2014 **Pereira, A.S., Martins, R.S., Mompean, G., Thais, L., Thompson, R.L.** On the extension of polymer molecules in turbulent viscoelastic flows: statistical and tensor investigation. *Workshop Progress in wall turbulence: understanding and modelling*, Villeneuve d'Ascq, France, 1-10 (2014).
- 2014 **Pereira, A.S., Martins, R.S., Mompean, G., Thais, L., Thompson, R.L.** On objective and non-objective kinematic flow classification criteria, *Workshop Progress in wall turbulence: understanding and modelling*, Villeneuve d'Ascq, France, 1-10 (2014).
- 2014 **Sandoval, G.A.B., Silva, R.T., Silva, L.A.S., Thomaz, F., Pereira, A.S., Soares, E.J.** Degradation of flexible polymers in turbulent drag reducing flows in pipes, *Rio Oil & Gas 2014*, Rio de Janeiro, Brazil, 1-9 (2014).
- 2014 **Sandoval, G.A.B., Silva, R.T., Soares, E.J., Silva, L.A.S., Thomaz, F., Pereira, A.S.** Redução de arrasto e degradação de polímeros flexíveis em escoamentos turbulentos em dutos *23rd International Congress of Mechanical Engineering (CONEM 2014)*, Uberlândia - MG, Brazil, 1-7 (2014).
- 2013 **Pereira, A.S., Andrade, R.M., Soares, E.J.** Drag reduction induced by flexible and rigid molecules in a turbulent flow into a rotating cylindrical double gap device: Comparison between Poly(ethylene oxide), Polyacrylamide, and Xanthan Gum. *22nd International Congress of Mechanical Engineering (COBEM 2013)*, Ribeirão Preto, Brazil, 1-10 (2013).
- 2013 **Andrade, R.M., Pereira, A.S., Soares, E.J.** Drag reduction into a rotating cylindrical double gap device by polymer addition: Effect of Reynolds number, concentration, temperature and different polymers at the very beginning of the test. *22nd International Congress of Mechanical Engineering (COBEM 2013)*, Ribeirão Preto, Brazil, 1-10 (2013).
- 2012 **Pereira, A.S., Soares, E.J.** Polymer degradation of dilute solutions in turbulent drag reducing flows in a cylindrical double gap rheometer device. *VII Congresso Nacional de Engenharia Mecânica (CONEM 2012)*, São Luís do Maranhão, Brazil, 1-9 (2012).
- 2011 **Pereira, A.S., Soares, E.J.** Experimental analysis of temperature effects on drag reduction by polymer additives. *21st International Congress of Mechanical Engineering (COBEM 2011)*, Natal, Brazil, 1-8 (2011).

COMMUNICATIONS DANS DES CONGRES NATIONAUX (à comité de lecture et actes publiés) - 5

- 2018 **Pereira, A.S., Mompean, G., Thompson, R.L.** The universal nature of the Newtonian transition to turbulence and the viscoelastic drag reducing turbulence. *GDR phénoménologie de la turbulence*, October 16-18, Nice, France (2018)
- 2017 **Pereira, A.S., Castellani, R., Antoniotti, A., Valette, R.** Analyse numérique des instabilités de flambage dans un fluide rhéoépaississant. *23ème Congrès Français de Mécanique [CFM2017]*, Aug. 2017, Lille, France (2017).
- 2014 **Pereira, A.S., Martins, R.S., Mompean, G., Thais, L., Thompson, R.L.** Analyses statistiques et tensorielles de l'étirement des polymères dans les écoulements visco-élastiques turbulents en canal plan. *49ème Congrès Annuel du Groupe Français de Rhéologie*, Grenoble, France, 1-10 (2014).
- 2014 **Pereira, A.S., Martins, R.S., Mompean, G., Thais, L., Thompson, R.L.** Interactions entre les structures cohérentes et les polymères dans les écoulements visco-élastiques turbulents en canal plan. *49ème Congrès Annuel du Groupe Français de Rhéologie*, Grenoble, France, 1-10 (2014).
- 2013 **Martins, R.S., Pereira, A.S., Mompean, G., Thais, L., Thompson, R.L.** Critères d'identification des structures cohérentes appliqués aux écoulements visco-élastiques turbulents dans un canal plan. *48ème Congrès Annuel du Groupe Français de Rhéologie*, Nantes, France, 1-10 (2013).

COMMUNICATIONS DANS DES CONGRES SANS ACTES DIFFUSES - 10

- 2016 **Pereira, A.S., Mompean, G., Thais, L., Soares, E.J.** Numerical analysis of the effects of the elasticity on the developing time in viscoelastic turbulent plane Couette flows. *51ème Congrès Annuel du Groupe Français de Rhéologie*, Villeneuve d'Ascq, France (2016).
- 2016 **Pereira, A.S., Martins, R.S., Mompean, G., Thais, L., Thompson, R.L.** On the polymer coil-stretch mechanism in turbulent viscoelastic channel flows: statistical and tensor investigation. *The XVIIth International Congress on Rheology (ICR2016)*, Kyoto, Japan (2016).
- 2016 **Pereira, A.S., Mompean, G., Thais, L., Soares, E.J.** Developing Time in Viscoelastic Turbulent Flows by Direct Numerical Simulations. *The XVIIth International Congress on Rheology (ICR2016)*, Kyoto, Japan (2016).
- 2015 **Pereira, A.S., Mompean, G., Thais, L., Soares, E.J.** Numerical simulation of turbulent drag reducing flows considering the effects of polymer degradation. *1st International Conference on Mechanics of Complex Solids and Fluids*, Villeneuve d'Ascq, France (2015).
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