

Chris D. Dritselis

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SHORT CV

Christos Dritselis is an Assistant Professor in the Department of Civil Engineering at the University of Thessaly, specializing in ‘Experimental Hydraulics’ (2024). He holds a Diploma in Mechanical Engineering (2001), a Master’s Degree in ‘Energy Systems, Industrial Processes, and Anti-Pollution Technology’ (2002), and a Ph.D. in Engineering (2007) from the University of Thessaly. He has over 10 years of research experience following the completion of his Ph.D. in various academic institutions. He has worked on 17 basic and/or applied research projects in the broader field of Fluid Mechanics. His research interests include fluid mechanics in energy, process, and environmental systems, mathematical modeling of flow and transport phenomena, experimental and computational fluid dynamics (CFD), hydrodynamic turbulence, particle flows, and multiphase flows with free surfaces/interfaces. He has published over 50 papers in scientific journals and international conference proceedings and he has given invited talks at universities and conferences. Finally, he has served as a reviewer for more than 80 papers in 27 scientific journals and conferences, as well as for research proposals funded by the European Commission.

EDUCATION

2002-2007 PhD in Engineering. Department of Mechanical Engineering, University of Thessaly.
2001-2002 MSc in Energy Systems, Industrial Processes, and Anti-Pollution Technology. Department of Mechanical Engineering, University of Thessaly.
1995-2001 Diploma in Mechanical Engineering. Department of Mechanical Engineering, University of Thessaly.

ACADEMIC/RESEARCH POSITIONS

- 06/2024 - **Assistant Professor**, Department of Civil Engineering, University of Thessaly
- 03/2024-06/2024 **Full-time Lecturer**, Department of Civil Engineering, University of Thessaly
- 2022-2024 **Postdoctoral Researcher**, Association EUROFUSION–Hellenic Republic, Mechanical Engineering Department, University of Thessaly
Participated in 1 research project employing molecular dynamics, DSMC (direct simulation Monte-Carlo) and Machine Learning techniques.
- 2019-2022 **Postdoctoral Researcher**, Department of Chemical Engineering, Aristotle University of Thessaloniki
Participated in 1 research project on the fluid dynamics behavior of multiphase flows (Newtonian/non-Newtonian) using CFD methods for biomedical applications.
- 2018-2019 **Postdoctoral Researcher**, Department of Mechanical Engineering TE, TEI of Thessaly
Participated in 1 research project in the field of fluid mechanics and mathematical modeling of particle flows in porous media for anti-pollution technologies using CFD and experiments.
- 2017-2018 **Lecturer**, Department of Mechanical Engineering, University of Thessaly
Taught undergraduate courses.
- 2013-2016 **National Representative** for the Association EUROFUSION - Greek Republic in the working group on plasma-wall interactions (Task-Force PWI) for the ITER reactor, European Fusion Development Agreement (EFDA).
- 2010-2020 **Laboratory/Scientific Associate, Research Fellow**, Department of Mechanical Engineering TE, TEI of Thessaly
Taught undergraduate courses and laboratories, and supervised thesis projects. Member of the three-member examination committee for undergraduate theses.
- 2010-2013 **Visiting Researcher** (5 months), Université Libre de Bruxelles (*ULB, Belgium*)
Participated in 5 research projects related to fluid mechanics, computational fluid dynamics, and the modeling of flow and transport phenomena, hydrodynamic/magnetohydrodynamic flows.
- 2010 **Visiting Researcher** (1 month), University of Cyprus (*Cyprus*)
Participated in 1 research project related to fluid mechanics, computational fluid dynamics, and the modeling of flow and transport phenomena, hydrodynamic/magnetohydrodynamic flows.
- 2009 **Visiting Researcher** (1 month), Karlsruhe Institute and Technology (*KIT/FZK, Germany*)

Participated in 1 research project related to fluid mechanics, computational fluid dynamics, and the modeling of flow and transport phenomena, hydrodynamic/magnetohydrodynamic flows.

2008-2016 **Postdoctoral Researcher**, Association EUROFUSION–Hellenic Republic, Mechanical Engineering Department, University of Thessaly

Participated in 1 research project in which he developed various computational fluid dynamics codes for simulating flow and transport phenomena in energy systems and environmental applications, and conducted basic research on fundamental phenomena in fluid mechanics, hydrodynamics/magnetohydrodynamics, numerical analysis, and the modeling of flow and transport phenomena.

2000-2007 **Research Associate**, Laboratory of Fluid Mechanics & Turbomachines, Mechanical Engineering Department, University of Thessaly

Participated in 5 projects in the fields of fluid mechanics (hydraulics/hydrodynamics), computational fluid dynamics (CFD), numerical analysis, and numerical and mathematical modeling of flow and transport phenomena - Assisted with teaching and co-supervised thesis projects.

TEACHING EXPERIENCE

2024 - Assistant Professor, Civil Engineering Department, University of Thessaly

Undergraduate courses:

- ‘*Fluid Mechanics*’ (Greek/English)
- ‘*Hydraulics*’
- ‘*Experimental Hydraulics*’

2017-2018 Lecturer, Mechanical Engineering Department, University of Thessaly

Undergraduate course:

- ‘*Heat Transfer*’

2010-2019 Laboratory Associate/Instructor, Mechanical Engineering Department TE, TEI-Technological, Educational Institute of Thessaly

Undergraduate courses:

- ‘*Pumps and Turbomachines*’
- ‘*Thermodynamics*’
- ‘*Fluid Mechanics*’
- ‘*Heat Transfer*’
- ‘*Numerical Methods of Transport Phenomena*’

2008-2009, Teaching Assistant, Department of Mechanical Engineering, University of Thessaly

2005-2007 Undergraduate courses:

- ‘*Fluid Mechanics I*’
- ‘*Turbomachines*’

Postgraduate course:

- ‘*Advanced Fluid Mechanics*’

- 2021-2022 Advisor in 2 diploma theses, Chemical Engineering Department, Aristotle University of Thessaloniki.
- 2020-2024 Supervisor in 2 diploma theses, Mechanical Engineering Department, University of Thessaly.
- 2018 Supervisor in 1 diploma thesis, Mechanical Engineering Department TE, TEI-Technological, Educational Institute of Thessaly.
- 2003-2024 Advisor in 8 diploma theses and in 1 postgraduate thesis, Mechanical Engineering Department, University of Thessaly.

PUBLICATIONS/PRESENTATIONS/IMPACT

- **22 publications in 16 journals:** Physics of Fluids – Powder Technology – Int. J. Multiphase Flow – Int. J. Heat and Mass Transfer – Int. J. Heat and Fluid Flow – Fluid Dynamics Research – Numerical Heat Transfer A – Int. J. Thermal Sciences – Nucl. Fusion – Advanced Powder Technology – J. Heat Transfer – SAE Int. J. Advances and Current Practices in Mobility – Fluids – Int. J. Engine Research – Computers and Fluids – Microfluidics and Nanofluidics.
- **37 publications in proceedings** of national and international conferences.
- **One (1) chapter** in a book.
- **Six (6) invited lectures** in universities and international conferences.
- **The citations** of the published work are 440 (394), h-index=10 (9) in Scopus, and 606, h-index=11 in Google Scholar (*Inside the parentheses are the citations excluding self-citations – 9/9/2024*).
- CD was the first to utilize DNS/LES methodologies for turbulent particle-laden flows¹ in Greece and he was the first to implement novel algorithms for the extraction of coherent structures together with appropriate sampling, highlighting the direct/indirect effects of particles on the hydrodynamic inhomogeneous, anisotropic turbulence.²
(^{1,2} As evidenced by a review of the relevant literature.)

REFEREE FOR SCIENTIFIC JOURNALS CONFERENCES & RESEARCH PROPOSALS

- **Referee in more than 80 papers in 27 scientific journals:** J. Fluid Mechanics - Physics of Fluids - International Journal of Multiphase Flow - International Journal of Engineering, Science and Technology - International Journal of Heat and Mass Transfer - Fusion Engineering and Design - International Journal of Thermal Sciences - Ain Shams Engineering Journal - Entropy - Applied Sciences - Scientia Iranica - International Journal of Environmental Research and Public Health - International Journal of Computational Fluid Dynamics - Fluids - Sustainability - Thermal Science - Advanced Powder Technology - Powder Technology - Physical A - J. of Turbulence - Aerospace Science and Technology - Processes - Water - Acta Mechanica – ASME J. Fluid Engineering – Agronomy.
- **Referee in the international conference:** 2nd Int. Conference on Mechanical, Electric and Industrial Engineering, MEIE2019, May 2019 Hangzhou, China.
- **Reviewer/evaluation expert:** nine (9) proposals of the COST Domain: Materials, Physical and Nano-sciences, Brussels, Belgium, September 2010.

DISTINCTIONS/FELLOWSHIPS/RECOGNITION OF SCIENTIFIC WORK

- **International collaborations** from my work as a postdoctoral visiting researcher at Université Libre de Bruxelles (Belgium, 2010-2013), University of Cyprus (Cyprus, 2010), and Karlsruhe Institute of Technology (Germany, 2009).
- **Invited lectures** at international conferences and symposia, such as the invitation to speak at the IUTAM Symposium on 'Turbulent structure and particles-turbulence interaction,' Lanzhou, China, June 26-29, 2020.
- **National Representative** of the Association EUROFUSION – Greek Republic in the working group on plasma-wall interactions (Task-Force PWI) for the ITER reactor, European Fusion Development Agreement (EFDA) (2013-2016), with the goal of presenting the research activities of the Greek team in the program and coordinating research and actions with representatives of the other 25 European teams.
- **Secretary** of the 9th and 10th School of Fusion Physics & Technology (Volos, 2010-2011), with the participation of approximately 20-30 invited speakers per year from Europe and America.
- **Scientific supervisor (and principal investigator)** of a research team consisting of four subgroups from Greece (2), Cyprus (1), and Romania (1) within the framework of the European excellence program in basic research, Enabling Research – EUROFUSION, 2014. (Only 10% of the total proposals submitted across Europe were funded, and it was the only proposal funded among the 10 submitted by the Greek EUROFUSION team – Greek Republic).
- **Reviewer** for 27 international scientific journals and one international conference.
- Recognition for **outstanding contribution in the review** of articles and the quality of the journal Int. J. of Multiphase Flow (2017).
- **Member of the editorial board** of scientific journals: Fluids (Topic Editor, 2021).
- **Reviewer (expert evaluation panel)** for research proposals for funding from the European Union, COST, Brussels.
- **Scholarships** from the National Program for Controlled Thermonuclear Fusion, EURATOM – Greek Republic (2009-13).
- **'HERACLITUS: Basic Research' scholarship**, Ministry of Education and Religious Affairs and the EU (2002-05).
- **Scholarships** from the Department of Mechanical Engineering, University of Thessaly (2001-02, 2002-03).

RESEARCH FIELDS

- Fluid dynamics and computational fluid dynamics CFD.
- Mathematical modeling of fluid flow and transport phenomena.
- Scientific computing and modeling (DNS, LES, RANS, finite volume, finite differences, pseudo-spectral).
- Physics and modeling of turbulence.
- Theoretical, numerical and experimental study of fluid-particle and particle-particle interactions

in two-phase particle-laden flows; wall roughness effects on turbulent transport and deposition of particles.

- Experimental Fluid Mechanics.
- Machine Learning techniques in the broader field of Fluid Mechanics.
- Multiphase flows with free-surface/interfaces, VoF, Phase Field Modeling.

RESEARCH PROJECTS

- 2022- **Researcher**, National Program of Controlled Thermonuclear Fusion, Department of Mechanical Engineering, University of Thessaly, Association EUROFUSION–Hellenic Republic (Budget: 60 k€/year).
- 2019-2022 **Researcher**, Project: ‘*Dynamics of spreading on liquid substrates with complex rheology*’, Department of Chemical Engineering, Aristotle University of Thessaloniki.
- 2018-2020 **Researcher**, Project: ‘*Microscale Computational and Experimental Investigation of the Behavior of Partially Failed Particulate Filters*’ (MIS 5007658)’, Department of Mechanical Engineering TE, TEI of Thessaly (Budget: 68.950 €).
- 2014-2015 **Researcher**, Project: ‘*Dynamics of electrically-induced flows of viscoelastic materials*’, Department of Mechanical Engineering, University of Thessaly.
- 2008-2016 **Researcher, Principal Investigator, Task Coordinator**, National Program of Controlled Thermonuclear Fusion, Department of Mechanical Engineering, University of Thessaly, Association EURATOM–Hellenic Republic (Budget: 60 k€/year).
- 2010-2013 **Visiting Researcher**, Université Libre de Bruxelles, Belgium (with *Prof. D. Carati, Prof. B. Knaepen*– Total: 5 months mobility visit). Projects: ‘*Motion of charged particles subject to random forces and fields*’ (2010), ‘*Magnetohydrodynamic flows with neutral or/and charged spherical particles transport and deposition models*’ (2011), ‘*MHD mixed convection flows in simplified proposed liquid-metal blankets*’ (2012), ‘*MHD mixed convection flows in simplified proposed liquid-metal blankets*’ (2013), ‘*MHD combined natural and forced convection in simplified liquid-metal breeding blankets*’ (2013) (Budget: 25 k€).
- 2010 **Visiting Researcher**, Department of Mechanical and Manufacturing Engineering, University of Cyprus, Cyprus (*Prof. S. Kassinos*– Total: 1 month mobility visit). Project: ‘*Dispersion of charged particles in the presence of external magnetic fields*’ (Budget: 5 k€).
- 2009 **Visiting Researcher**, Karlsruhe Institute of Technology (KIT/FZK), Karlsruhe, Germany (with *Dr. L. Buehler*– Total: 1 month mobility visit). Project: ‘*Modeling of particle transport in turbulent magnetohydrodynamic flows*’ (Budget: 5 k€).
- 2004 **Researcher**, Project: ‘*Adaptive CFD Code for Industrial Design and Environmental Applications – GSRT/02PRAXE18*’, Department of Mechanical Engineering, University of Thessaly (Budget: 40 k€).

- 2004 **Researcher**, Project: ‘*Recording of atmospheric aerosol concentrations in the urban area of Volos - 2889*’, Department of Mechanical Engineering, University of Thessaly.
- 2002-2005 **Researcher**, Project: ‘*Study of turbulent air-particle two-phase flow in ducts – Heracitus, Basic Research*’, Department of Mechanical Engineering, University of Thessaly (Bugdet: 32 k€).
- 2000 **Researcher**, Project: ‘*Modeling and Control of the Processes of Precalciner for Cement Production – GSRT/96SYN121*’, Department of Mechanical Engineering, University of Thessaly (Bugdet: 24 k€).

PERSONAL SKILLS

- COMPUTERS Very good knowledge of:
- **Operating systems:** DOS, Windows, OS X, and UNIX (Linux).
 - **Application programs:** MS Office, AutoCad, Mathematica, Vim, Emacs, LaTeX, gnuplot, Paraview, Tecplot, GDL-GNU.
 - **Commercial/free distributed CFD software:** TEACH, DIAN, FLUENT, STAR CCM+, OpenFOAM.
 - **Programming languages:** FORTRAN 77/90/95/2003 and C/C++, Julia, Liszt.
 - **Parallel programming:** MPI/OPENMP.
 - **Scripting languages:** Bash, Python.
 - **Version control:** git (*distributed model*), subversion (*client-server model*).
- OTHER
- Experience with LES – Large Eddy Simulation and with high-resolution numerical simulations DNS – Direct Numerical Simulation (finite-differences and pseudospectral CFD codes).
 - Experience with large-scale computations on high performance computing platforms and OpenMP/MPI.
 - Development and maintenance of computational MPI cluster units.
 - Experience with experimental measurement methods based on LASER, such as LDA and PDA.

DISSERTATIONS/THESES

- 2007 PhD thesis: ‘*Study of turbulent air-particle two-phase flows in ducts*’.
- 2002 Postgrand thesis: ‘*Effect of spatially periodic wall temperature distributions on the mixed convection flow and heat transfer in vertical channels*’.
- 2001 Diploma thesis: ‘*Numerical simulation of flow and transport phenomena in cyclones for cement industry*’.

[A] PUBLICATIONS

Articles published in scientific journals

- [A.1] D.K. Fidaros, C.A. Baxevanou, **C.D. Dritselis**, and N.S. Vlachos, ‘*Numerical modeling of flow and transport processes in a calciner for cement production*’, Powder Technology, vol. 171:2, pp. 81 – 95, 2007.
- [A.2] **Chris D. Dritselis** and Nicholas S. Vlachos, ‘*Numerical study of educed coherent structures in the near-wall region of a particle-laden channel flow*’, Phys. Fluids, vol. 20, art. no. 055103 1 – 12, 2008.
- [A.3] I.E. Sarris, A.J. Iatridis, **C.D. Dritselis**, and N.S. Vlachos, ‘*Magnetic field effect on the cooling of a low-Pr fluid in a vertical cylinder*’, Phys. Fluids, vol. 22, art. no. 017101, 2010.
- [A.4] **C.D. Dritselis**, I.E. Sarris, D.K. Fidaros, and N.S. Vlachos, ‘*Transport and deposition of neutral particles in magnetohydrodynamic turbulent channel flows at low magnetic Reynolds numbers*’, Int. J. Heat and Fluid Flow, vol. 32, pp. 365 – 377, 2011.
- [A.5] **Chris D. Dritselis** and Nicholas S. Vlachos, ‘*Numerical investigation of momentum exchange between particles and coherent structures in low Re turbulent channel flow*’, Phys. Fluids, vol. 23, art. no. 025103 1 – 15, 2011.
- [A.6] **Chris D. Dritselis** and Nicholas S. Vlachos, ‘*Large eddy simulation of gas-particle turbulent channel flow with momentum exchange between the phases*’, Int. J. Multiphase Flow, vol. 37, pp. 706 – 721, 2011.
- [A.7] **C.D. Dritselis** and N.S. Vlachos, ‘*Effect of magnetic field on near-wall coherent structures and heat transfer in magnetohydrodynamic turbulent channel flow of low Prandtl number fluids*’, Int. J. Heat and Mass Transfer, vol. 54, pp. 3594 – 3604, 2011.
- [A.8] A.J. Iatridis, **C.D. Dritselis**, I.E. Sarris, and N.S. Vlachos, ‘*Transient laminar MHD natural convection cooling in a vertical cylinder*’, Numerical Heat Transfer Part A: Applications, vol. 62, pp. 531 – 546, 2012.
- [A.9] **C.D. Dritselis**, A.J. Iatridis, I.E. Sarris, and N.S. Vlachos, ‘*Buoyancy-assisted mixed convection in a vertical channel with spatially periodic wall temperature*’, Int. J. of Thermal Sciences, vol. 65, pp. 28 – 38, 2013.
- [A.10] **C.D. Dritselis** and B. Knaepen, ‘*Mixed convection of a low Prandtl fluid with spatially periodic lower wall heating in the presence of a wall-normal magnetic field*’, Int. J. of Heat and Mass Transfer, vol. 74, pp. 35 – 47, 2014.

- [A.11] **C.D. Dritselis**, ‘*Large eddy simulation of turbulent channel flow with transverse roughness elements on one wall*’, Int. J. of Heat and Fluid Flow, vol. 50, pp. 225 – 239, 2014.
- [A.12] G.L. Falchetto et al, ‘*The European Integrated Tokamak Modelling (ITM) effort: achievements and first physics results*’, Nucl. Fusion, vol. 54, 043018, pp.1 – 19, 2014.
- [A.13] **C.D. Dritselis**, ‘*Direct numerical simulation of particle-laden turbulent channel flows with two- and four-way coupling effects: budgets of Reynolds stress and streamwise enstrophy*’, Fluid Dyn. Res., vol. 48, pp. 1 – 31, 2016.
- [A.14] **C.D. Dritselis**, ‘*On the enhancement of particle deposition in turbulent channel airflow by a ribbed wall*’, Advanced Powder Technology, vol. 28 (3), pp. 922 – 931, 2017 (<http://dx.doi.org/10.1016/j.apt.2016.12.021>).
- [A.15] **C.D. Dritselis**, ‘*Direct numerical simulation of particle-laden turbulent channel flows with two- and four-way coupling effects: models of terms in the Reynolds stress budgets*’, Fluid Dyn. Res., vol. 49 (2), 025509 1 – 24, 2017.
- [A.16] **C.D. Dritselis**, ‘*Numerical study of particle deposition in a turbulent channel flow with transverse roughness elements on one wall*’, Int. J. Multiphase Flow, vol. 91, pp. 1 – 18, 2017.
- [A.17] **C.D. Dritselis**, ‘*A numerical study of developing buoyancy-assisted mixed convection with spatially periodic wall heating*’, ASME J Heat Transfer, vol. 139 (8), 082502 1 – 8, 2017.
- [A.18] O. Haralampous, M. Mastrokalos, F. Tzorbatzoglou, and **C. Dritselis**, ‘*Experimental and computational investigation of particle filtration mechanisms in partially damaged DPFs*’, SAE International Journal of Advances and Current Practices in Mobility, vol. 2, pp. 681 – 691, 2019.
- [A.19] **C. Dritselis**, F. Tzorbatzoglou, M. Mastrokalos, and O. Haralampous, ‘*Numerical study of flow and particle deposition in wall-flow filters with intact or damaged exit*’, Fluids, vol. 4(4), pp. 1 – 29, 2019.
- [A.20] O. Haralampous, M. Mastrokalos, F. Tzorbatzoglou, and **C. Dritselis**, ‘*Filtration efficiency and pressure drop modelling of particulate filters with rear plug damage*’, International Journal of Engine Research, 1 – 18, 2020.
- [A.21] **C.D. Dritselis** and G. Karapetsas, ‘*Open-source finite volume solver for multi-phase (n-phase) flows involving either Newtonian or non-Newtonian complex fluids*’, Computers and Fluids, vol. 245, 105590 1 – 21, 2022.

- [A.22] F. Sofos, **C. Dritselis**, S. Misdanitis, T. Karakasidis, and D. Valougeorgis, ‘*Computation of flow rates in rarefied gas flow through circular tubes via machine learning techniques*’, *Microfluidics and Nanofluidics*, 27:85, 2023.

[B] PUBLICATIONS

Articles published in proceedings of international conferences (with referees)

- [B.1] **C.D. Dritselis**, I.E. Sarris, and N.S. Vlachos, ‘*Direct numerical simulation of particle pollutant transport and deposition in turbulent duct flows*’, 9th International Conference on Environmental Science & Technology, Rhodes Greece, 1 – 3 September 2005 (*published in Conference Proceedings, vol. A, pp. 346 – 351, also in the CD of Conference Proceedings*).
- [B.2] **Chris D. Dritselis** and Nicholas S. Vlachos, ‘*Numerical study of educed coherent structures in the near wall region of a particle-laden channel flow*’, 6th International Conference on Multiphase Flow, Leipzig Germany, 9 – 13 July 2007 (*full paper in the CD of Conference Proceedings, art. no. S3.Tue_C_24, pp. 1 – 10*).
- [B.3] **C.D. Dritselis** and N.S. Vlachos, ‘*DNS/LES study of fluid-particle interaction in a turbulent channel flow at a low Reynolds number*’, 6th International Conference of Numerical Analysis and Applied Mathematics ICNAAM 2008, Kos Greece, 16 – 20 September 2008 (*published in AIP Conf. Proceedings, vol. 1048, pp. 735 – 738, 2008*).
- [B.4] **C.D. Dritselis** and N.S. Vlachos, ‘*Direct numerical simulation of particle interaction with coherent structures in a turbulent channel flow*’, iTi Conference on Turbulence III, Bertinoro Italy, 12 – 15 October 2008.
- [B.5] **C.D. Dritselis**, M. Moutsikopoulou, and N.S. Vlachos, ‘*Modeling of droplet deposition in two-phase gas-liquid annular pipe flows for environmental applications*’, 11th International Conference on Environmental Science & Technology, Chania Crete, Greece, 3 – 5 September 2009 (*published in Conference Proceedings, vol. A, pp. 269 – 276, also in the CD of Conference Proceedings*).
- [B.6] I.E. Sarris, A.I. Iatridis, **C.D. Dritselis**, and N.S. Vlachos, ‘*Low-Prandtl number MHD cooling in a vertical cylindrical container*’, 12th EUROMECH European Turbulence Conference—ETC12, Marburg Germany, 7 – 10 September 2009.
- [B.7] **C.D. Dritselis** and N.S. Vlachos, ‘*On the effect of a transverse magnetic field on the coherent structures near the wall of a channel*’, 6th International Symposium on Turbulence, Heat and Mass Transfer THMT09, Rome Italy, 14 – 18 September 2009 (*published by Begell House, Eds. K. Hanjalić, Y. Nagano, S. Jakirlić, pp. 997–1000, 2009. ISBN 978–1–56700–262–1, full paper in the CD of Conference Proceedings*).

- [B.8] **C.D. Dritselis**, ‘*Large eddy simulation of particle-laden turbulent channel flow with transverse roughness elements on one wall*’, 7th International Conference of Numerical Analysis and Applied Mathematics ICNAAM 2009, Crete Greece, 18–22 September 2009 (published in AIP Conf. Proceedings, vol. 1168, pp. 677 – 680, 2009).
- [B.9] V.D. Alexopoulos, E.D. Demetriou, **C.D. Dritselis**, N.S. Vlachos, ‘*Effect of concentration on the flow rate distribution in bifurcations*’, 3rd International Symposium on Biofluids, Munich Germany, 13 Sept. 2009.
- [B.10] **C.D. Dritselis**, A. Iatrides, I.E. Sarris, and N.S. Vlachos, ‘*Turbulent dispersion of nonmetallic impurities in magnetohydrodynamic channel flow of liquid-metals at low magnetic Reynolds number*’, 6th International Conference on Electromagnetic Processing of Materials EPM 2009, Dresden Germany, 19 – 23 October 2009, paper no. 226, pp. 1 – 4.
- [B.11] **C.D. Dritselis** and N.S. Vlachos, ‘*Damping effect of magnetic fields on the turbulent coherent structures in material processing*’, 6th International Conference on Electromagnetic Processing of Materials EPM 2009, Dresden Germany, 19 – 23 October 2009, paper no. 224, pp. 1 – 4.
- [B.12] **Christos Dritselis**, ‘*Numerical investigation of particle-laden turbulent channel flow with either longitudinal or transverse roughness elements on the lower wall*’, 7th International Conference on Multiphase Flow, Tampa FL USA, May 30–June 4, 2010 (paper 3.5.2 – <http://ufdc.ufl.edu/UF00102023/00088>).
- [B.13] S. Georgakakou, **C. Dritselis**, V. Bontozoglou, Z. Daniil, and K. Gourgoulianis, ‘*Modeling airflow and particle transport in the lungs*’, 8th GRACM International Congress on Computational Mechanics, Volos, Greece, 12 Jul. –15 Jul. 2015.
- [B.14] Onoufrios Haralampous, **Chris Dritselis**, ‘*Modeling of the loading phase in partially-damaged DPF*’, 4th International Symposium on Modeling of Exhaust-Gas After-Treatment (MODEGAT IV), Karlsruhe, 13 Sept. –15 Sept. 2015.
- [B.15] Chris Dritselis and I.E. Sarris, ‘*Numerical modeling of dust transport in a tokamak plasma*’, 17 European Fusion Theory Conference (EFTC2017), Athens, 9 Oct. – 12 Oct. 2017.
- [B.16] O. Haralampous, M. Mastrokalos, F. Tzorbatzoglou, and **C. Dritselis**, ‘*Experimental and computational investigation of particle filtration mechanisms in partially damaged DPFs*’, 14th International Conference on Engines & Vehicles (ICE2019), Napoli, Italy, 15 Sept. – 19 Sept. 2019.

- [B.17] **Chris Dritselis**, ‘*Particle interactions with coherent structures near the wall in a turbulent channel flow*’, IUTAM symposium on Turbulent structure and particles-turbulence interaction, Lanzhou, China, June 26-29, 2020 (postponed).
- [B.18] **Chris Dritselis** and G.K. Karapetsas, ‘*Numerical study of non-linear dynamics of liquid lenses spreading over a viscoplastic liquid layer*’, 73rd Annual Meeting (APS) Division of Fluid Dynamics (DFD20), Chicago, 22 Nov. - 24 Nov. 2020, Conference Bulletins, 2020 (virtual - <https://www.aps.org/meetings/meeting.cfm?name=DFD20>).
- [B.19] **Chris Dritselis** and G.K. Karapetsas, ‘*A numerical study of a droplet spreading between Newtonian and viscoplastic stratified fluids*’, 5th International Conference on Droplets Online Event, 16-18 August 2021 (virtual - https://www.sfb1194.tu-darmstadt.de/droplets_2021/index.en.jsp).
- [B.20] **Chris Dritselis** and G.K. Karapetsas, ‘*Open-source finite volume solvers for the simulation of multiphase (n-phase) Newtonian/non-Newtonian fluid flows*’, 74th Annual Meeting (APS) Division of Fluid Dynamics (DFD21), November 21-23, 2021 - Phoenix, USA.
- [B.21] **Chris Dritselis** and G.K. Karapetsas, ‘*A parametric study of dynamics of liquid lens spreading over a viscoplastic liquid substrate*’, 10th Int. Meeting of the Hellenic Society of Rheology-HSR2022, June 29-July 2, 2022, Skiathos, Greece.
- [B.22] **Chris Dritselis** and G.K. Karapetsas, ‘*Non-linear transient dynamics of liquid lens spreading over a viscoplastic fluid substrate*’, XIXth International Congress on Rheology (ICR2023, Athens, Greece, July 29th-August 4th, 2023).
- [B.23] Fillipos Sofos, **Chris Dritselis**, Serafeim Misdanitis, Theodoros Karakasidis, Dimitris Valougeorgis, ‘*Data driven closed form expressions for computing the rarefied gas flow rate through circular tubes via machine learning*’, Proceedings of the 4th European Conference on Non-equilibrium Gas Flows - NEGF23, 29-31 March 2023, Eindhoven, the Netherlands.

[C] PUBLICATIONS

Articles published in proceedings of conferences and meetings

- [C.1] D. Fidaros, **Ch. Dritselis**, and N. Vlachos, ‘*Numerical Modeling of Calciner Processes*’, FLOW 2000: 2nd Meeting of Research Activities in Fluid Flow Phenomena in Greece, pp. 126 – 129, Univ. of Thessaly, Volos Greece, 22 May 2000 (in Greek).
- [C.2] **C. Dritselis**, D. Fidaros, and N. Vlachos, ‘*Numerical Simulation of Flow and Transport Phenomena in Cyclones*’, 1st Meeting of the Greek Section of ERCOF-TAC, Thessaloniki Greece, 31 Jan.–1 Feb. 2002.
- [C.3] **Ch. Dritselis**, D. Fidaros, and N. Vlachos, ‘*Simulation of Flow and Transport Phenomena in Cyclones for Cement Production*’, FLOW 2002: 3rd Meeting of Research Activities in Flow Phenomena in Greece, pp. 170 – 174, Univ. of Patras, Patras Greece, 2-3 Oct. 2002 (in Greek).

- [C.4] D. Fidaros, **C. Dritselis**, and N. Vlachos, ‘*Numerical aspects of chemically reacting flows in cement calciners*’, 3rd Meeting of the Greek Section of Combustion Institute, Patras Greece, 2-3 October 2003.
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