

Curriculum Vitae

Armin Haghshenas

Date of birth: 21.09.1985
Nationality: Iranian, Marital status: Married
Max Planck Institute for Meteorology (MPI-M)
Bundesstrasse 53, 20146 Hamburg, Germany
Email: armin.haghshenas@mpimet.mpg.de
Phone: +49 179 2615238



EDUCATION

- 2015 - 2019 **Doctor of Philosophy** in Natural Sciences.
Group of Turbulent Mixing Processes in the Earth System, Max Planck Institute for Meteorology.
Department of Earth Sciences, University of Hamburg, Germany.
Thesis Title: On entrainment in sheared convective boundary layers.
- 2008 - 2011 **Master of science** in Mechanical Engineering.
Department of Mechanical Engineering, University of Tehran, Iran.
Thesis Title: Simulation of heat transfer in 2D two-phase flow using lattice Boltzmann method.
Cumulative GPA: 17.96/20 (top 5%).
- 2003 - 2007 **Bachelor of science** in Mechanical Engineering.
Department of Mechanical Engineering, University of Tehran, Iran.
Thesis Title: Simulation of fluid flow around a sphere by numerical-spectral Galerkin method.
Cumulative GPA: 17.03/20 (top 5%).

WORK EXPERIENCE

- 04.2019 **Post-doctoral fellow.**
- 11.2019 Group of Turbulent Mixing Processes in the Earth System, Max Planck Institute for Meteorology.
Research on Coriolis-force effects on sheared convective boundary layers.
- 04-2014 **Mechanical Engineer.**
- 12.2014 Toos Ab Consulting Engineers Company, Mashhad, Iran.
Hydromechanical consulting engineer for dams and power plants.
- 02.2012 **Mandatory Military Service.**
- 07.2013 Tehran, Iran

PUBLICATIONS

- Haghshenas, A.**, Mellado, J.P., Hartmann, M., *Non-singular zero-order bulk models of sheared convective boundary layers*, Journal of the Atmospheric Sciences, (In review).
- Haghshenas, A.**, Mellado, J.P., *Characterization of wind-shear effects on entrainment in a convective boundary layer*, Journal of Fluid Mechanics, 858, 145-183 (2019).
- Haghshenas, A.**, Rahimian, M.H., *Numerical simulation of two-layer fluid natural convection in a side-heated enclosure using Lattice Boltzmann method*, International Journal of Computer & Mathematical Science IJCMS, Volume 4, Issue 10, (2015).
- Haghshenas, A.**, Rafati nasr, M., Rahimian, M.H., *Numerical simulation of natural convection in an open-ended square cavity filled with porous medium by lattice Boltzmann method*, International Communications in Heat and Mass Transfer, Volume 37, Issue 10, 1513-1519 (2010).

CONFERENCES

Haghshenas, A., Mellado, J.P., *Wind-shear effects on the structure and dynamics of the convective boundary layer*, EGU General Assembly, Wien, Austria, April 24-28 2017.

Haghshenas, A., Mellado, J.P., *Characterization of wind-shear effects on the entrainment zone of a convective boundary layer*, 70th Annual Meeting of the APS, Division of Fluid Dynamics, Denver, USA, Nov 19-21 2017.

Haghshenas, A., Mellado, J.P., *Wind-shear effects on entrainment in a convective boundary layer*, AMS 23BLT/21ASI, Oklahoma City, USA, June 11-15 2018.

ADDITIONAL SKILLS

General Team player, Initiative, Analytical mind-set, Presentation skills, Scientific writing.

Technical Big data analysis, Linux, L^AT_EX, Python, FORTRAN, C++, MATLAB, Paraview.

Language Persian (Mother tongue), English (Fluent), German (Intermediate-B2).

FIELDS OF INTEREST

Renewable energy (wind)
Aerodynamics and fluid mechanics
Heat transfer and energy systems

REFERENCES

Dr. Bjorn Stevens
Professor at University of Hamburg
Director of the Atmosphere department in MPI-M
Email: bjorn.stevens@mpimet.mpg.de

Dr. Juan Pedro Mellado
Professor at Polytechnic University of Catalonia
Former Group Leader in MPI-M
Email: juan-pedro.mellado@mpimet.mpg.de