Mouna MAACHE Md. BATTIRA

University professor

PROFIL

Date and place of birth : 23/07/1970 Batna

Marital status : Married

Number of children : 4

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LANGUAGES

Arab

Frensh

English

FORMATION

1987

Batna, Algeria

DIPLOMA : Baccalaureate in Technical Mathematics

High school El-Bachir El-Ibrahimi. Batna

1991 - 1992

Batna, Algeria

DIPLOMA : State engineering. Specialty : Mechanical Engineering. Option : Energy

Batna University

1997 - 1998

Batna, Algeria

DIPLOMA : Magister. Specialty : Mechanical Engineering. Option : Energy

Batna University

2008 - 2009

Constantine, Algeria

DIPLOMA : State Doctorate in Science. Specialty : Mechanical Engineering. Option : Energy

Mentouri University Constantine

2016 - 2017

Mascara, Algeria

DIPLOMA : University accreditation

Mustapha Stambouli University Mascara

Bechar University Center

- Assistant Master 1996-1999

Djelfa University Center

- Charged of courses 1999-2004

Mentouri University Constantine

- Charged of courses 2004-2009
- Lecturer (B) 2009-2010

Moulay Tahar University Saida

- Lecturer (B) 2010-2017
- Lecturer (A) 2017-2018

Abbes Laghrour University Khenchela

- Lecturer (A) 2018 - 28/02/2024
- Professor from 29/02/2024 to this day.

A- INTERNATIONAL PUBLICATIONS

1- **Mouna Battira** and Rachid Bessaïh, « Three-Dimensional Natural Convection in the Horizontal Bridgman Configuration under Various Wall Electrical Conductivity and Magnetic Field » *Numerical Heat Transfer, Part A*, 55: 58-76, 2009. https://doi.org/10.1080/10407780802603113

2- **M. Battira** and R. Bessaih, « Magnetohydrodynamic Damping of Natural Convection Flows in a Rectangular Enclosure » book-chapter, *"New Trends in Fluid Mechanics Research"*, 2009, SPRINGER
DOI: 10.5772/7589

3- **M. Battira** and R. Bessaih, « Radial and Axial Magnetic Fields Effects on Natural Convection in a Nanofluid-filled Vertical Cylinder » *Journal of Applied Fluid Mechanics*, Vol. 9, No. 1, pp. 407-418, 2016.
DOI: 10.18869/acadpub.jafm.68.224.24187

4- Kamel Chadi and **Maache Mouna Battira**, Momen S. M. Saleh, Nourredine Belghar, Mohammed Lachi, Ali J. Chamkha, « Impact of geometric shape of cavity on heat exchange using Cu-Al_2O_3-H_2O hybrid nanofluid » *Waves in Random and Complex Media*, October 2022.
https://doi.org/10.1080/17455030.2022.2134606

5- **Mouna Maache Battira**, Chihabeddine Brahmi, Rachid Bessaih, Kamel Chadi, « Forced Convection of Cu-Water Nanofluid in Vented Square Enclosure with an Interior Rotating Hexagonal Cylinder » *International Journal of Heat and Technology*, Vol. 41, No. 2, April, 2023, pp. 399-406.
https://doi.org/10.18280/ijht.410214

6- **M. Maache Battira**, C. Brahmi, R. Bessaih, « MHD Natural Convection of Fe_3O_4-Water Nanofluid in a Cubic Cavity » *Journal of Nano- and Electronic Physics*, Vol. 15 No 5, 05032 (pp.7) (2023)
https://doi.org/10.21272/jnep.15(5).05032

7- C. E. Brahmi, **M. Maache Battira**, N. Belghar, M. Kalfali, and R. Bessaih, "Free convection and entropy generation inside porous cavities with irregular vertical walls nonuniformly heated from below," *Numerical heat transfer. Part A. Applications*, vol. 85, no. 14, pp. 1–27, May 2024.
https://doi.org/10.1080/10407782.2024.2359046 .

8- C. E. Brahmi, **M. Maache Battira**, N. Belghar, M. Kalfali, and Z. Driss, "Free Convection inside Greenhouse Cavity Partially Filled with Bottom Porous Layer: The Influence of Soil's Porosity and Permeability," *International Journal of Heat and Technology*, vol. 42, no, pp. 1849–1858, Dec. 2024
https://doi.org/10.18280/ijht.420602

B- INTERNATIONAL COMMUNICATIONS :

1- **M. Battira** and R. Bessaih, « MHD Stability of Natural Convection in Rectangular Enclosure »Shanghai, China, Aug 15-19, 2007.

2- **M. Battira** and R. Bessaih, « Stabilité MHD de la Convection Naturelle dans une Enceinte Rectangulaire » Canadian Congress of Applied Mechanics CANCAM Sherbrook (QC) Canada 27-30 May 2007.

3- **M. Battira** and R. Bessaih, «Three-Dimensional Natural Convection in a Rectangular Enclosure under Magnetic Field », 8th Word Congress on Computational Mechanics (WCCM8). 5th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008) June 30-July 5, 2008, Venise, Italy.

4- **M. Battira** and R. Bessaih, «Magnetohydrodynamic Stability of Three-Dimensional Natural Convection in a Cavity filled with a Liquid Metal », Fourth International Conference on Energy Research & Development (ICERD-4) November 17-19, 2008.

5- **Mouna Battira** and Rachid Bessaih, « Effet de la Direction d'un Champ Magnétique sur la Convection Naturelle d'un Nano-Fluide remplissant un Cylindre Vertical », XIIème Colloque Interuniversitaire Franco-Québécois sur la Thermique des Systèmes, 8-10 Juin 20015, Sherbrook, Québec Canada.

6- **M. Maache Battira** and Rachid Bessaih, « Numerical Study of Natural Convection in a NanoFluid-Filled Vertical Cylinder under an External Magnetic Field »,18th International Conference on Fluid Mechanics, Heat Transfer and Thermodynamics, Mar 21-22, 2016, 18(3) Part X, Rome, Italy.

7- **Mouna Maache Battira**, Samir Arouf, Rachid Bessaih, Abdelmadjid Chehhat, « EFFECTS OF MAGNETIC FIELD DIRECTION AND NANOPARTICLES CONCENTRATION ON FREE CONVECTION IN A VERTICAL CYLINDER », 5TH INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING ISTANBUL 2019, 17-19 DECEMBER 2019.
ISBN: 978-605-9546-16-4

8- Abdelmadjid Chehhat, **Mouna Maache**, Mohamed Si-Ameur, « Numerical Study of the Turbulent Air Flow through the Turbocharger Compressor Using Different Rotor Shapes » 23-27 November 2021
DOI: 10.1109/IRSEC53969.2021.9740730

9- **Mouna Maache Battira**, Abdelmadjid Chehhat, Samira Noui, Rachid Bessaih, « Effect of the main directions of an external magnetic field on the free convection in Fe_3O_4-water nanofluid filled cubic enclosure » 9th Eur. Ren. Energy Sys. 21-23 April 2021, ECRES 2021, Istanbul, Turkey.

10- Kalfali Mahmoud, Belghar Noureddine, Brahmi Chihabeddine, **Maache Mouna** (2023) « Numerical study of free convection in a cavity filled with a hybrid nano-fluid (Cu + Al_2O_3 - water) in thepresence of a magnetic field »
(ARCME'23) 10th, 11th and 12th December 2023. University of Biskra, Algeria.

C- NATIONAL COMMUNICATIONS :

1- Chehhat Abdelmadjid, **Maache Mouna Battira,** Si-Ameur Mohamed « Analyse CFD de l'effet de la géométrie du rotor sur un écoulement tridimensionnel turbulent de l'air dans un turbocompresseur » The First National Conference on Materials, Energy & Environment (MEE'2020) / Junuary 20-21, 2020, University of El-Oued.
2- **Maache Battira Mouna**, Chehhat Abdelmadjid, Bessaih Rachid (2022) « MHD natural convection of Fe_3O_4-water nanofluid in a cubic cavity », 1st National Conference on Materials Sciences and Engineering (MSE'22), June 28 & 29th, 2022. University of Khenchela.
3- Chehhat Abdelmadjid, **Maache Battira Mouna,** Si-Ameur Mohamed (2022) « Prédiction de l'écoulement Turbulent et des Performances d'une Pompe Centrifuge par Simulation Numérique » The 1st National Conference on Thermal Engineering – Renewable and Conventional Process (NCTE 22).