Curriculum Vitæ

Ridha DJEBALI

PhD-Dr. /HDR, Associate Professor of Physics
Born August 1^{rst}, 1977 at Téboursouk - Tunisia
Nationality: Tunisian
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SUMMARY

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Experience **14 years**	-Rank: Associate Professor of Physics -Employment History: 2 Colleges of Engineering +2 of sciences -Academic qualification: Engineer + Master + Doctor + HDR
Teaching & multi.	-Course Teaching: +15 differents courses + practicals for all levels -Course Development: +7 developped courses -Pedagogy committee: Scientific Council since 2014
Research activities	-Publications: +50 in indexed Journal & +35 Conferences -Postgraduate Supervision: +10 supervisions (Eng / Matser / PhD) -Research Grants: CMCU + High Level Scientific Stay (2017)
Community service	-Professional Memberships: Association Academic Acts (ISLAIB) -Events Organized: 5 Conferences as a member of organization -Committee Participation: Recruitment ++12 defenced dissertations

I. CAREER

23/5/2017 — ***University Habilitation*** (HDR degree) ***in Physics*** from the University of Jendouba. The file was chaired by Pr. Fadhel Ben Sheikh Larbi, reviewed by Pr. A. Omri and Pr. N. Sghaier and publicly defended on May 23, 2017 at IPEST, la Marsa in front of the following committee:

F. Ben Cheikh Larbi	Pr.	(IPEST, University of **Carthage**)
Ahmed El Omri	Pr.	(FSG, University of **Gafsa**)
Nabil Sghaier	Pr.	(IPEIN, University of **Carthage**)
Fayçal Saadallah	Assoc. Pr.	(IPEIN, University of **Carthage**)
Nour Sghaier	Assoc. Pr.	(ENIM, University of **Monastir**)
Said Abboudi	Pr.	(Univ. Bourgogne Franche Comté, **UTBM, France**)

2008-2011 —***PhD in Physics in co-supervision*** between the **University of Tunis el Manar** & **University of Limoges**: with **first class honors**.

— Title of thesis: «*Simulation and modeling of multi-phases and multi-components media using Lattice Boltzmann approach (in French)*» 160 pages —Co-supervised by: Pr. H. Sammouda, Pr. M. ElGanaoui & Dr. B. Pateyron and in collaboration between *LETTM* laboratory - Fac. of Sc. of Tunis and *SPCTS* – Fac. of Sc. and Tech. of Limoges. Thesis

referees are Mr. N. BOUKADIDA and Mr. J. POUSIN, and defended on May, 14th 2011 in front of the following committee:

Habib Sammouda	Pr. (ESSTS, University of Sousse, **Tunisia**)
Noureddine Boukadida	Pr. (ISSATS, University of Sousse, **Tunisia**)
Taieb Lili	Pr. Em. (FST, Univ. Tunis el Manar, **Tunisia**)
Bernard Pateyron	Dr. ès Sci. Phys.-HDR (CNRS, Limoges, **France**)
Mohammed El Ganaoui	Pr. (University of Nancy 1, Henri Poincaré, **France**)
Jérôme Pousin	Pr. (INSA-Lyon, University of Lyon, **France**)

Download-link at*: http://epublications.unilim.fr/theses/index.php?id=7240*

2006-2007 —*Research Master* degree in *Physics* spec. Applied fluid mechanics, heat and mass transfers, carried out in Fluid Mechanics laboratory: FML (obtained with **grade A pass**).

—Title of thesis: «*Study of transition to turbulence of two-dimensional natural convection flows (in French)*» 85 pages (Faculty of Sciences of Tunis, 2007).
—*Courses attended*: Boundary layers, Porous media, Thermal radiation, Numerical methods (FV, FD, FE, Spect.), Scientific computing under FORTRAN.

2000-2002 — *National Diploma in General Mechanical Engineering*, (**rank: 9/29**), obtained from the Monastir National School of Engineering. Title of the dissertation: «*Probabilistic study of the numeric hazard effects on polycycles fatigue limit of parts treated by shot peening (in French)*» (ENIM 2002).

1997-1999 —*Preparatory Studies in Mathematics and Physics*, Preparatory Institute for Engineering Studies of Tunis: IPEIT.

1997 —*Baccalaureate degree in Mathematics (pretty good+ Laureate of first rank of the school).* Ibn Abi Dhief Secondary school (Teboursouk).

II. TRAININGS

1. Scholarships & Grants

Oct. 2017 Laboratory Interdisciplinary Carnot of Bourgongne (ICB), UMR n ° 6303 CNRS, France. Scientific Stay of High Level (SSHN2017: 2 weeks). Results: common publications and proposal of (02) thesis subjects in co-supervision.

Juil. 2010 —Alternance scholarship from the Tunisian Ministry of Higher Education for a training course on the ceramic processes and surface treatment science at laboratory (SPCTS). 1 month - Limoge University (Studying phenomena of plasma-powder exchanges during particle journey in hot gas: transport, heating, melting and evaporation - Publication in DDF journal. (Dr B. Pateyron).

Dec. 2009 Laboratory of Ceramic Processes Sciences and surface treatment , Univ. of Limoges, France. 2 weeks - Development of an axisymmetric LBM model for simulating plasma jet problems at T=13500 K and V=520m/s. - Publication in the journal IReChe.

Mai 2008 —Alternance scholarship from the Tunisian Ministry of Higher Education for a training course on the ceramic processes and surface treatment science at laboratory (SPCTS) - Limoge University 2 months: (Case studies by the help of the Lattice

Boltzmann Method: simulation of heat and fluid flow (Dr. M. el Ganaoui) & contribution to the study of solar air conditioning project (Dr. A. Grimaud)).

Oct. 2007 —Scholarship CMCU (04/G1213), a four- month training course on ceramic processes and surface treatment sciences at laboratory (SPCTS) - Limoge University - France. Training course on thermal spraying processes (Prof.P.Fauchais), heat and fluid flow simulation using Lattice Boltzmann Method, Workshop seminar COMSOL multiphysics November 22th, 2007 - Limoges.

2. Certificates / Accreditation

22.03.2018 — Photovoltaic installation connected to STEG grid (Training + simulation under PVSyst code & experimental workshop)

Sector : Renewable Energies / Photovoltaic
Institution : *ISET of Tozeur & Tunisian Association of New and Renewable Energies*

28.02.2018 — International Accreditation & Higher Education: A process to follow

Sector : Accreditation & Higher Education
Institution : *High School of Engineers of Medjez El Bab*

25.10.2017 — Scientific Stay of High Level (SSHN2017)

Sector : Scientific Research
Institution: *Laboratory Interdisciplinary Carnot of Bourgongne (ICB), UMR n ° 6303 CNRS, France*

01.05.2017 — Local training group to improve English speaking skills (Level 1: one semester)

Sector : Eductaion
Institution : *Bourguiba Institute of Modern Languages of Tunis*

06/3/2017 — First Spring School "Lattice Boltzmann Methods with OpenLB Software Lab" (Five days training)

Sector : Scientific Research in numerical modelling
Institution : *Lab Karlsruhe Institute of Technology, Germany* (http://optilb.org/openlb/)

14/3/2016 — Training in Gammarth-Tunis on quality management systems SMQ, ISO 9001 version 2015.

Sector: Human Ressources Management
Institution: *Campany Moufid Karray Consulting*, Tunisia

20.04.2015 — Member of organizing committees in CIMaTen (2016 Ed.) and Infol@angue (2015, 2016, 2017, 2018 Eds.) conferences

Sector : Scientific Research
Institution : *Faculty of sciences of Gafsa / ISLAI Béja*

05/1/2014 — New Educational Systems: For a New Vision of Learner- Centered Learning in the 21st Century Plan of Action for Preparation to Success (40hours)

Sector : Higher Education and Educational system

Institution : *AMIDEAST* by Dr. Saloua Saidane Rezgui, Mesa Collège, *Université de San Diego, Californie.*

05/9/2012 — Finite Element Modeling Using COMSOL Multiphysics version 4.3 – with Workshop

Sector : Scientific Research in Numerical modelling

Institution : *Elnady Engineering and Agencies, Egypt*

11.11.2007 — COMSOL Multiphysics Workshops

Sector : Scientific Research

Institution : *COMSOL Engineers*, at Faculty of Science and Technology of Limoges, France

20.10.2007 — Development of ceramic and metallic thin coatings under high temperatures (~20000K) and velocity (~3km/s)

Sector : Scientific Research in Thermal projection processes

Institution : Laboratory of Ceramic Processes Sciences and surface treatment, *Univ. of Limoges, France*

III. WORK EXPERIENCE

1. Responsabilities

— Director of the Higher Institute of Applied Languages and Computer Science of Béja, ISLAIB, University of Jendouba since Dec. 15, 2020.

— Head of the Research Unit UR22ES12: Modeling Optimization and Augmented Engineering, ISLAIB, University of Jendouba since 2022.

2. Pedagogic

—**Teaching:**

Sept. 2018 + —***Associate Professor of Physics*** at Higher Inst. of Appl. Lang. and Comp. Sci.- Béja, University of Jendouba

⊳ Physics of vibrations and waves (integrated courses for L1),

⊳ Acoustics and sound processing (courses and practicals for L2),

⊳ Physics of sound and acoustics / sound synthesis (courses and practicals for Professional Master of Computer Sci.),

⊳ Sound Processing (courses and practicals for Professional Master of Computer Sci.).

2015-2023 —***Visiting Professor*** since Sept. 2015 at Higher School for Engineers of Medjez Elbab - University of Jendouba, Tunisia

⊳ Teaching integrated course in Numerical Modeling and Simulation of Fluid Dynamics, M2 Master of Research in Engineering of Agro-Industrial Equipment using FV method; ● Write a booklet of course with application exercises.

2013-2018 — ***Assistant Professor of Physics*** at Higher Inst. of Appl. Lang. and Comp. Sci.- Béja, University of Jendouba

⊳ Physics of vibrations and waves (integrated courses for L1),
⊳ Acoustics and sound processing (courses and practicals for L2),
⊳ Physics of sound and acoustics / sound synthesis (courses and practicals for Professional Master of Computer Sci.),
⊳ Sound Processing (courses and practicals for Professional Master of Computer Sci.).

2010-2013 —***Adjunct Professor of Physics*** at Preparatory Inst. for Eng. Studies of Nabeul - Univ. Carthage

⊳ Integrated course & practicals in physics (Level 1): geometrical optics, electrokinetics, electrostatics, mechanics of particle motion, thermodynamics.
⊳ Practicals in physics (level 2), AOP-2, second order filter, light polarization, thermal radiation: Stefan law, diffraction networks, Michelson interference.

2008-2010 — ***Assistant Technologist of Mechanics*** at Higher Inst. of Technological Studies - ISET Béja: General Directorate of Higher Institutes of Technological Studies at Rades, Tunisia.

⊳ Materials resistance: simple and compound solicitations: (integrated course),
⊳ Probability and statistics (integrated course),
⊳ Production workshop: milling section (practicals),
⊳ Preparation for manufacturing: (practicals),
⊳ Perfect and viscous fluid mechanics (integrated course),
⊳ Industrialization workshop Practicals.
—Course Handouts:
✓ Materials Resistance Booklet: ISET library: A.Y- 08/09 (49 pages).
✓ Fluid mechanics booklet: ISET library: A.Y- 2009/2010 (29 pages).

—Supervision:

⊳ *Title*: Study of the natural convection of nanofluids in micro-exchangers by the Boltzmann network approach: MHD and MEMS effects, Mokhtar Ferhi, **2018-22**, PhD at ENSIT, Tunis

⊳ *Title*: Design of an automatic feeding magazine for drilling and cutting bars 16 in serial production, Feryel Hamdi, **2018**. Eng. Graduation Project at ENIGa- Tunisia.
⊳ *Title*: Study of the passive cooling and air conditionning of premises by help of Trombe wall technique, Rafika Baccouri, **2018**. Master dissertation at ESIM-Tunisia.
⊳ *Title*: Study of the natural convection using the Lattice Boltzmann Method, Rafika Baccouri, **2017**. Eng. Graduation Project at ENIGa- Tunisia.
⊳ *Title*: Application of an experimental plan to investigate agro-food product drying process, Wiem Nasri, **2017**. Master dissertation at ESIM-Tunisia.
⊳ *Title*: Modeling and simulation of biofuel production by pyrolysis of solid olive residues, Amani Ghanmi, **2016**. Master dissertation at ESIM-Tunisia.
⊳ *Title*: Optimization study the operating conditions to improve the quality of the deposits obtained by the plasma spraying process, Ali Hleli, **2016**. Master dissertation at ENSIT-Tunis.

> *Title*: Multi-physical study of modeling and simulation of thermoelectric systems: Peltier cooling modeling and thermoelectric generation, Wiem Nasri, **2016**. Eng. Graduation Project at ESIM- Tunisia.

> *Title*: Design study of multifunctional electric wheelchairs for adults with muscular dystrophy: problems and innovative solutions, Iheb Ouerghi, **2013**. ISET Béja, Tunisia.

> Academic Year: 2008/2009 & 2009/2010: supervision of refresher trainings (internship reports & case studies).

— **Recruitment committees:**

> Participation in recruitment committees for contract teachers in physics at the University of Jendouba as chair or member of the committee at the sessions August 2015, 2017-2022.

3. Organization of congresses / conferences

— Member of the organizing committees of the Infol @ ngues annual conference (2015, 2016, 2017, 2018 Eds.), ISLAI Béja

— Member of the organizing committees of the CIMaTen International Congress (2016 Ed.), Sousse.

— Member of the Scientific Committee of the congress: International Symposium on Advanced Technologies, Renewable Energies and Economic Development (CITED'2018), 15-17 Nov. 2018.

— Member of the organizing committees of the CIMatEn, Nov. 5-7, 2021, Sousse, Tunisia

— Member of the Scientific Committee of the International Conference on Energy and Material Sciences (EMS'2022) November 16-17, 2022 Skikda-Algeria.

4. Professional in Companies

✓ Jan. 2005 - Sept. 2005: Manager of the quality management system (QMS) - SIALA Frères company
   - Responsible of the quality management system QMS
✓ June 2003 - Sept.2 003: Production manager and trainer - Afrique Metal Company
   - Trainer of new recruited technicians
   - Monitoring and control of production
✓ Jan. 2003 - Mai 2003: Head of the cutting plant - SOTUCOUPE company.
   - Monitoring and control of production

IV. SCIENTIFIC RESEARCH WORKS

1. Research topics (include but not limited to)

✓ Numerical simulation and modeling using Lattice Boltzmann method (LBM) & Finite Volumes (FVM), Fire Dynamics Simulator (FDS), Fluent 6.3 / Gambit, COMSOL multiphysics.,

✓ Problems of flows and heat transfer including Magneto-hydrodynamic MHD, Dynamics of unsteady flows, transition and symmetry breaking in Bridgman models, low-Prandtl number flows, porous media,...

✓ Thermal spraying processes and plasma jets dynamics,

✓ Turbulence, Large Eddy Simulation (LES),

- ✓ Aplication of Taguchi Experimental Design to engineering problem,
- ✓ Computational Fluid Dynamics (CFD) & Computational Heat Transfer (CHT),
- ✓ Heat transfer enhancement by nanofluids.

2. Papers in journals

2022' 50. **R. Djebali**, Design of Experiment optimization by Response Surfaces of pin-fins cooling performance in electronic enclosures: A second law analysis. Chapter in Book: Multidimensionality of research for sustainable development. Accepted in Cambridge Scholars Publishing Book -OCTA Conference (Ref. HF/454908) 2021.

49. M. Ferhi, **R. Djebali**, S. Abboudi and W. Alkouz. MHD convective nanofluid flow, heat transfer and irreversibility analysis in a horizontal micro tall cavity with heat sources in the slip regime. Journal of Nanofluids, Volume 11, Number 4, August 2022, pp. 510-527. **ISI Web of Sciences**

48. M. Ferhi and **R. Djebali**, Heat Transfer Appraising and Second Law Analysis of Cu-Water Nanoliquid Filled Microchannel: Slip Flow Regime. Romanian Journal of Physics 67, 605 (2022) **IF'2021=1.662**

47. M. Ferhi, **R. Djebali**, F. Mebarek-Oudina, N. H. Abu-Hamdeh, S. Abboudi, MHD Free Convection Through Entropy Generation Scrutiny of Eco-Friendly Nanoliquid in a Divided L-Shaped Heat Exchanger with LBM Simulation, Journal of Nanofluids, 11 (1), 99–112 (2022). **ISI Web of Sciences**

2021' 46. M. Ferhi, **R. Djebali**, W. Al-Kouz, S Abboudi, AJ Chamkha. MHD conjugate heat transfer and entropy generation analysis of MWCNT/water nanofluid in a partially heated divided medium. Heat Transfer-Asian Research. 2021, 50(1), pp. 126–144. https://doi.org/10.1002/htj.22007. **IF'2021~0.7 ISI Web of Sciences / Scopus**

45. **R. Djebali**, F. Mebarek-Oudina, R. Choudhari, Similarity solution analysis of dynamic and thermal boundary layers: further formulation along a vertical flat plate. Phys. Scr. 96 085206, 2021, DOI: 10.1088/1402-4896/abfe31 **IF'2021=3.081**

44. **R. Djebali**, Mesoscopic study of mixed convection and heat transfer due to crescent shape hot source under magnetic field and Joule effect, Romanian Reports in Physics, 72, 106 (2021). **IF'2021=2.085**

43. **R. Djebali**, Numerical Analysis of Nanofluid Cooling Efficiency of Hot Multishaped Cylinder in Vertical Porous Channel. Romanian Journal of Physics 65, XYZ (2020). **IF'2021=1.662**

2020' 42. Efficient 2nd Order Taylor Series Expansion Model to Integrate Stiff and Non-Linear ODEs: Comparison to Rk45-Type Integrators. Glob J Eng Sci. 6(5):1-7, 2020. GJES.MS.ID.000647. DOI: 10.33552/G JES.2020.06.000647.

41. **R. Djebali**, Numerical Analysis of Nanofluid Cooling Efficiency of Hot Multishaped Cylinder in Vertical Porous Channel, Romanian Journal of Physics , 2020, 65(9-10), pp. 1–10, 122. **IF'2021=1.662**

40. M. Ferhi and **R. Djebali**, Appraising conjugate heat transfer, heatlines visualization and entropy generation of Ag-MgO/H2O hybrid nanofluid in a partitioned medium, International Journal of Numerical Methods for Heat and Fluid Flow. 30(10), pp. 4529-4562 (2020). **IF'2021=5.181**

39. **R. Djebali**, A Jaouabi, T Naffouti and S. Abboudi; Appraising of pin-fins heat dissipation performance in enclosures by help of accurate LB approach: application to power electronics cooling; *International Journal of Numerical Methods for Heat and Fluid Flow*, 30(2), 742-768, 2019. **IF'2021**=5.181

2019' 38. M. Ferhi, **R. Djebali**, S. Abboudi; Conjugate natural heat transfer scrutiny in differentially heated cavity partitioned with a conducting solid using the lattice Boltzmann method; *Journal of Thermal Analysis and Calorimetry.* 138, 3065-3088, 2019.**IF'2021**=4.755

37. I. Boumrar and **R. Djebali;** Experimental Validation of Pressure Distribution Prediction under Delta Wing Apex Vortex at High Reynolds Numbers; *CFD Letters* 11(3), 92-102 (2019). **ISI Web of Sciences / Scopus**

36. **R. Djebali** and Said Abboudi; Transition Thresholds and Routes to Unsteadiness of Magneto-Convective Flows in Tall Cavities at Low-Prandtl-Number Fluids. *CFD Letters* 11(3), 55-71 (2019). **ISI Web of Sciences / Scopus**

35. W. Nasri, **R. Djebali**, M. Goodarzi, M.A. Abbassi, S. Abboudi; Apple convective drying - Part II: Scrutinization of monitoring parameters levels via Taguchi optimization approach;*CFD Letters* 11(3), 42-54. (2019). **ISI Web of Sciences / Scopus**

34. W. Nasri, **R. Djebali**, M. Goodarzi, M.A. Abbassi, S. Abboudi; Apple convective drying - Part I: Finite elements parametric study for appraising the operating conditions effects; *CFD Letters* 11(3), 28-41. (2019). **ISI Web of Sciences / Scopus**

33. Mokhtar Ferhi, **R. Djebali**, S. Abboudi; Appraising of Nanofluid Conjugate Natural Convection in a Partitioned Cavity Based on Experimental Correlations; *CFD Letters* 11(3), 1-27 (2019). **ISI Web of Sciences / Scopus**.

2018' 32. Mohamed Ammar Abbassi, Mohammad Reza Safaei, **R. Djebali**, Kamel Guedri, Belkacem Zeghmati , Abdullah A.A.A. Alrashed, LBM simulation of free convectionin a nanofluid filled incinerator containing a hot block, *International Journal of Mechanical Sciences* , 144, pp. 172-185, 2018 **IF'2017=3.570**

31. **R. Djebali** Lattice Boltzmann Method Computation of Turbulent High-Temperature Plasma Jets. Glob J Eng Sci. 1(1): 2018. GJES.MS.ID.000503..

30. M.A. Abbassi, **R. Djebali** and K. Geudri; Effects of heater dimensions on nanofluid natural convection in a heated incinerator shaped cavity containing a heated block; *Journal of thermal Engineering*, Vol. 4, n.3, pp.2018-2036, 2018.

29. **R. Djebali** and MA.A. Abbassi; Lattice Boltzmann Method for the Simulation of Flows and Transfers at Very High-Temperature: A Dynamic Framework of Conversion to Physical Space with Test Cases; *Springer Book "Z. Driss et al. (eds.), Thermo-Mechanics Applications and Engineering Technology,"* Chapter 7, pp.151-169, 2018, https://doi.org/10.1007/978-3-319-70957-4_7.2017

2017' 28 M.A. Abbassi, B. Mliki and **R. Djebali**; Lattice Boltzmann Method for simulation of nanoparticle Brownian motion and magnetic field effects on free convection ina nanofluid-filled open cavity with heat generation/absorption and non uniform heating on the left solid vertical wall; *Fluid dynamics & Materials Processing*, 13(2), pp.59-83, 2017.

27 W. Nasri, **R. Djebali**, S. Dhaoui, S. Abboudi and H. Kharroubi; Finite Elements Multiphysics Investigation of Thermoelectric Systems for Electricity and Cooling Generation; *International Journal of Modern Studies in Mechanical Engineering*, Vol. 3, n.4, pp. 1-13, 2017. DOI: http://dx.doi.org/10.20431/2454-9711.0304001

26. **R. Djebali,** A. Hleli, A. Lamari and M.A. Abbassi; Optimization study on the operating conditions to improve the quality of surfaces coating obtained by plasma spraying process; *Journal of thermal Engineering*, Vol. 3, n.4, pp. 1411-1418 , 2017.

25. **R. Djebali**; A confrontation of three design techniques' results for optimizing plasma spraying operating conditions toward deposit requirements: Lattice Boltzmann, Finite Difference and Taguchi experimental design; *International Journal of Energy Optimization and Engineering* (IJEOE), Vol. 6, n.4, pp 16-35, 2017.

2016' 24. **R. Djebali,** Mohammed ElGanaoui, Abdallah Jaouabi, Bernard Pateyron; Lattice Boltzmann scrutiny of spray jet and impact characteristics under dispersion effects of powder injection parameters in APS process; International Journal of Thermal Sciences, vol. 100, pp. 229-239, 2016. **IF'2014=2.63**

23. **R. Djebali**, M. A. Abbassi, and A. Rouahi; Conjugate Effects of Buoyancy and Magnetic Field on Heat and Fluid Flow Pattern at Low-to-Moderate Prandtl Numbers; International Letters of Chemistry, Physics and Astronomy, Vol. 66, pp 79-95, 2016.

22. **R. Djebali**, Bernard Pateyron and Mohammed El Ganaoui; Some advances on optimizing plasma spraying conditions toward process control; 2016 7th International Renewable Energy Congress, IREC 2016, pp. 1-6, 2016.

2015' 21. .Hamdi Moumni, Hedia Welhezi, **R. Djebali**, Ezeddine Sediki; Accurate Finite Volume Investigation of Nanofluid Mixed Convection in Two-sided Lid Driven Cavity Including Discrete Heat Sources; *Applied Mathematical Modelling*, vol. 39, n. 14, pp. 4164–4179, 2015. **IF'2014=2.251**

20. **R. Djebali** ; B. Pateyron and M. El Ganaoui ; Scrutiny of plasma spraying complexities with case study on the optimized conditions toward coating process control; *Case Studies in Thermal Engineering*, vol. 6, pp. 171-181, 2015

2014' 19. **R. Djebali**; Investigating Plasma Jets Behavior using Axisymetric lattice Boltzmann Model under Temperature Dependent Viscosity; *Communications in Computational Physics*, vol. 15, n. 3 (2013), pp. 677-691. **IF'2014=1.943**

18. M. Toujani, **R. Djebali**, L. Hassini, S. Azzouz and A. Belghith, Hydro-thermo-viscoelastic Based Finite Element Modeling of Apple Convective Drying Process, *CMES: Computer Modeling in Engineering & Sciences*, vol. 98, No. 4, pp. 469-485, 2014. **IF'2014=1.030**

17. **R. Djebali**; Comments on "Lattice Boltzmann Analysis of 2-D Natural Convection Flow and Heat Transfer within Square Enclosure including an Isothermal Hot Block, by Naffouti, Zinoubi and Ben Maad"; *CFD Letters*,vol.6, n. 3, pp. 126-130, 2014.

2013' 16. **R. Djebali**; B. Pateyron and M. El Ganaoui; A Lattice Boltzmann Based Investigation of Powder In-flight Characteristics during APS Process, Part II: Effects of Parameter Dispersions at Powder Injection; *Surface & Coatings Technology*, vol. 220 (2013), pp.157-163. **IF'2014=1.998**

15. **R. Djebali,** M. Toujani, B. Pateyron; Taguching the Atmospheric Plasma Spraying Process: Influence of Processing Factors on Droplet Impact Properties Obtained on Dense ZrO2 and H2Ar75% Plasma Gas; *Computers, Materials & Continua*, vol. 37, n. 3 (2013), pp. 147-160. **IF'2014=0.964**

14. **R. Djebali** et al.; Comments on "A generalized lattice Boltzmann method for three-dimensional incompressible fluid flow simulation, by Rahmati and Ashrafizaadeh"; CFD Letters, vol. 5, n. 4, pp. 193-196, 2013.

2012' 13. **R. Djebali**, M. El Ganaoui and T. Naffouti; A 2D Lattice Boltzmann Full Analysis of MHD Convective Heat Transfer in Saturated Porous Square Enclosure; *CMES: Computer Modeling in Engineering & Sciences*, vol. 84, n. 6 (2012), pp.499-527. **IF'2014=1.030**

12. **R. Djebali**, M. El Ganaoui and B . Pateyron; A Lattice Boltzmann Based Investigation of Powder In-flight Characteristics during APS Process, Part I: Modelling and Validation; *Progress in Computational Fluid Dynamics*, Vol. 12, No. 4 (2012), pp. 270-278. **IF'2014=0.688**

11. T. Naffouti and **R. Djebali**; Natural Convection Flow and Heat Transfer in Square Enclosure Asymetrically Heated from Below: A Lattice Boltzmann Comprehensive Study; *CMES: Computer Modeling in Engineering & Sciences*, vol. 88, n. 3 (2012), pp. 211-228. **IF'2014=1.030**

10. **R. Djebali**; B. Pateyron and M. El Ganaoui; Prandtl Number Signature on Flow Patterns of Electrically Conducting Fluid in Square Enclosure; *CMES: Computer Modeling in Engineering & Sciences*, vol. 88, n. 4 (2012), pp.293-307. **IF'2014=1.030**

2011' 9. **R. Djebali**, B. Pateyron; M. ElGanaoui; A lattice Boltzmann-Based Study of Plasma Sprayed Particles Behaviours; *CMC: Computers, Materials & Continua*, Vol. 25, No. 2, (2011), pp. 159-176. **IF'2014=0.964**

8. **R. Djebali** and M. El Ganaoui; Assessment and Computational Improvement of Thermal Lattice Boltzmann Models Based Benchmark Computations; *CMES: Computer Modeling in Engineering & Sciences*, vol. 71, n. 3 (2011), pp. 179-202. **IF'2014=1.030**

7. **R. Djebali** M. El Ganaoui, B . Pateyron and H. Sammouda; Simulation and Modeling of Turbulent Plasma Jet Based on Axisymetric LBGK Model; *Defect and Diffusion Forum*, vols. 312-315 (2011), pp 1167-1171.

2010' 6. **R. Djebali**, H. Sammouda, M. El Ganaoui; Some Advances in Applications of Lattice Boltzmann Method for Complex Thermal Flows; *Adv. Appl. Math. Mech.*, vol. 2, n. 5 (2010), pp. 587-608. **IF'2014=0.626**

5. M. El Ganaoui, **R. Djebali**; Aptitude of a Lattice Boltzmann Method for Evaluating Transitional Thresholds for Low Prandtl Number Flows in Enclosures; *C. R. Mecanique*, 338 (2010), pp.85-96. **IF'2014=1.090**

4. **R. Djebali**, B. Pateyron, M. El Ganaoui and H. Sammouda; Lattice Boltzmann Computation of Plasma Jet Behaviors : Part II. Argon-Azote Mixture; *International Review of Chemical Engineering (IRECHE)*, vol 2. n. 1 (2010), pp. 86-94.

2009' 3. **R. Djebali**, B . Pateyron, M. El Ganaoui and H. Sammouda; Axisymmetric high temperature jet behaviors based on a lattice Boltzmann computational method : Part I. argon plasma; *International Review of Chemical Engineering (IRECHE)* Vol. 1. n. 5 (2009), pp. 428-438.

2. **R. Djebali**, M. El Ganaoui and H. Sammouda; Investigation of a side wall heated cavity by using lattice Boltzmann method, *European Journal of Computational Mechanics (EJCM)*, vol 18/2 (2009), pp. 217-238.

1. **R. Djebali**, M. ElGanaoui, H. Sammouda and R. Bennacer; Some benchmarks of a side wall heated cavity using lattice Boltzmann approach; *Fluid Dynamics and Material Processing (FDMP)*, vol.164, n. 1 (2009), pp. 1-21.

3. Books / monographs

R. Djebali (2012): "Méthode de Boltzmann pour les écoulements et les transferts: Concept, implémentation et applications aux écoulements dans les enceintes et aux jets plasma turbulents". **Presses Académiques Francophones**, 172 p.

4. Communications in congress proceedings (oral and poster)

1. R. Djebali, M. El Ganaoui, H. Sammouda and B. Pateyron; Simulation de la convection naturelle par la méthode de Boltzmann sur réseau; JTET (Bizerte-Tunisie) 2009

2. R. Djebali, M. Pateyron, H. Sammouda and M. EL Ganaoui; Atmospheric axisymetric plasma jet simulation based based on lattice Boltmann method; JITH (Jerba-Tunisia) 2009

3. Djebali, M. EL Ganaoui, H. Sammouda et B. Pateyron; Un schéma accéléré de la méthode de Boltzmann pour la simulation d'une compétition flottaison-entrainnement; CM (Marrakech-Maroc) 2009

4. R. Djebali, M. El Ganaoui, H. Sammouda, B. Pateyron and A. Belghuith; Simulation of jet-flows by using a lattice Boltzmann algorithm; ICCHMT (Guangzhou, China) 2009.

5. R. Djebali, N. Calvé, B. Pateyron, M. El Ganaoui;Les méthodes de résolution de type "Lattice Boltzmann" sont-elles utilisables pour simuler les jets plasmas soufflés atmosphériques utilisés en projection?; Plasmas Froids, (Bonascre-France) 2009.

6. R. Djebali, B. Pateyron, M. El Ganaoui and H. Sammouda; Lattice Boltzmann Computation of Plasma Jet Behaviors : Part II. Argon-Azote Mixture; (CEAM) Virtual forum (Naples) 2009.

7. R. Djebali, B. Pateyron, M. El Ganaoui, H. Sammouda; An axisymmetric BGK-LES framework for simulation and modeling of turbulent plasma-jets; GD (Greifswald Germany) 2010

8. R. Djebali, M. El Ganaoui, H. Sammouda and B. Pateyron; Simulation of laminar natural convection flows in saturated porous media cavities under uniform magnetic field effects; HEFAT (Antalya, Turkey) 2010.

9. R. Djebali, M. El Ganaoui, H. Sammouda and B. Pateyron; On the effects of Uniform Magnetic Field on Natural Convection in Fluid-Saturated Porous Media Enclosures; ICTEA (Marrakesh, Morocco) 2010.

10. R. Djebali, B. Pateyron, M. El Ganaoui, H. Sammouda; Un modèle thermique couplé LBGK-LES pour la simulation de jets plasma: application au mélange argon-azote; SFT (Le Touquet France) 2010.

11. R. Djebali, M. El Ganaoui, B. Pateyron and H. Sammouda;Simulation of thermal axisymetric plasma-jets based on LBGK-LES turbulent model; AMT (Settat, Maroc) 2010

12. R. Djebali, N. Calvé, B. Pateyron, M. El Ganaoui,H. Sammouda; Les méthodes de résolution de type « Lattice Boltzmann » sont-elles utilisables pour simuler les jets plasmas soufflés atmosphériques utilisés en projection?; CIFEM, (Saly, Sinégal) 2010.

13. R. Djebali, M. El Ganaoui, B. Pateyron and H. Sammouda; Simulation and Modeling of Turbulent Plasma Jet Based on Axisymetric LBGK Model; DSL (Paris-France) 2010.

14. R. Djebali, H. Sammouda, M. El Ganaoui and B. Pateyron; Simulation du comportement dynamique en projection plasma par la méthode de Boltzmann sur réseau; JTET (Tozeur-Tunisie) 2011.

15. R. Djebali, M. El Ganaoui, B. Pateyron and H. Sammouda; Étude des phénomènes de transferts plasma -particules par la méthode de boltzmann sur réseau; CM (Oujda-Maroc) 2011.

16. R. Djebali, M. El Ganaoui, B. Pateyron and H. Sammouda; lattice boltzmann study of transfer phenomena and transport of flying particles in d.c. plasma spraying; IC-CHMT (Istanbul-Turkey) 2011.

17. R. Djebali, H. Sammouda, M. El Ganaoui and B. Pateyron, Etude du comortement en projection plasma par la méthode de Boltzmann sur réseau, JITH (Tlemcen-Algérie) 2011.

18. R. Djebali, M. El Ganaoui, B. Pateyron and H. Sammouda; Lattice Boltzmann study of transfer phenomena and transport of in-flight particles in d.c plasma spraying; NASCASE11 (Settat-Maroc) 2011.

19. R. Djebali, M. El Ganaoui, B. Pateyron and H. Sammouda; Etude du comportement en projection plasma de particules d'Alumine par la méthode de Boltzmann sur réseau; SFGP (Lille-Grand palis- France) 2011.

20. R. Djebali, B. Pateyron, M. El Ganaoui and H. Sammouda; Les méthodes de résolution de type «Lattice Boltzmann» sont-elles utilisables pour simuler les jets plasmas soufflés atmosphériques utilisés en projection thermique? SFT2011 (Perpignan-France) 2011.

21. R. Djebali, N. Calvé, B. Pateyron & M. ElGanaoui; Quelles utilisations des méthodes de résolution de type « Lattice Boltzmann » dans la simulation des jets plasmas soufflés atmosphériques?; 10ème Colloque sur les arcs électriques CAEX; Centre Européen de la Céramique, (Limoges) 2011.

22. K. Lahmer, R. Bessaih, A. Scipioni, M. ElGanaoui and R. Djebali, SFT (Gérardmer-France) Mai, 28-31, 2013.

23. R. Djebali, B. Pateyron and M. El Ganaoui; 7th IREC Int. Renewable Energy Conference (Hammamet, Tunisia) March 22 - 24, 2016.

24. R. Djebali, A. Hleli and M.A. Abbassi; ICAS 2016, Istanbul, Turkey, 31 August - 2 Sptember 2016.

25. M.A. Abbassi, R. Djebali, A. Omri; ICAS 2016, Istanbul, Turkey, 31 August - 2 Sptember 2016.

26. Ridha Djebali, M. El Ganaoui, W. Nasri, and M.A. Abbassi; A multiphysics simulation of thermoelectric systems for electricity and cooling generation, CIMATEN2016, Sousse, Tunisia 17-19 December 2016.

27. R. Djebali, M.A. Abbassi and M. El Ganaoui; Powerfulness of SRT-BGK LB thermal models to evaluate transitional thresholds in low Prandtl number flows; LBM Springer School with OpenLB software Lab; (Hammamet, Tunisia) March 6-10/2017.

28. R. Djebali, W. Nasri, K. Moueddeb and S. Abboudi, Thermoelectric modules as a sustainable solution for refrigeration and electricity generation. Proceeding of the 2nd conference Scientific Days of Medjerda (SDMed2017), 25-27 October 2017, ESIER Medjez el Bab, Tunisia.

29. R. Djebali, W. Nasri, M.A. Abbassi, Z. Driss; Convective apple drying: scrutinization of operatory conditions via Taguchi optimization approach; International Conference on Mechanics and Energy December 20-22, 2018, Hammamet, TUNISIA

30. W. Nasri, Z. Driss, R. Djebali; Convective apple drying: Appraising influence of operatory conditions using FE modeling; International Conference on Mechanics and Energy December 20-22, 2018, Hammamet, TUNISIA

31. Ridha Djebali and Mokhtar Ferhi, Irreversibility analysis and heat transfer of mhd ecofreindly nanofluid in l-shaped heat exchanger, CIMatEn, Nov. 5-7, 2021, Sousse, Tunisia

32. Mokhtar Ferhi, Appraising heat transfer and entropy generation of cu-water nanofluid in a partially heated microchannel, CIMatEn, Nov. 5-7, 2021, Sousse, Tunisia

33. Ridha Djebali, Mokhtar Ferhi, Bouchmel Mliki and Mohamed Ammar Abbassi. Are SRT-BGK models still usable versus emerging models? An augmented model applied to nanoliquids, ICMMES, July 12-16, Hammamet - Tunisia

34. Mokhtar Ferhi, Ridha Djebali, Bouchmel Mliki and Mohamed Ammar Abbassi. Mesoscopic Study of fluid flow and heat transfer in a linearely heated micro-heat exchanger, ICMMES, July 12-16, Hammamet - Tunisia

35. Mohamed Ammar Abbassi, Bouchmel Mliki, Mokhtar Ferhi and Ridha Djebali. Enhancement and control of nanoliquid MHD natural convection in an enclosure containing a hot triangular block, ICMMES, July 12-16, Hammamet - Tunisia

36. Ridha Djebali and Mokhtar Ferhi, DOE of heat transfer and entropy generation in channel micro micro-heat exchanger driven by a coflow. International Conference on Energy and Material Sciences (EMS'2022) November 16-17, 2022 Skikda-Algeria.

37. Mokhtar Ferhi, Ridha Djebali, Heat transfer and entropy generation in a micro-heat exchanger induced by wall injection. The 13th International Renewable Energy Congress, December, 13-15, 2022 Hammamet -Tunisia.

38. Ridha Djebali and Mokhtar Ferhi, Appraising of heat transfer enhancement and entropy generation minimization in a micro tall cavity under magnetic field and sinusoidal heating. The 13th International Renewable Energy Congress, December, 13-15, 2022 Hammamet -Tunisia.

V. OTHER SKILLS

1. Informatics

✓ Commercial Computing softwares: FEM, FVM, FDM respctively: COMSOL, FLUENT, JETS&POUDRES: Good; Number of years: 10
   ✓ Lattice Boltzmann Method LBM simulation : Good; Number of years : 10
   ✓ SMQ-ISO9001 : Good; Number of years : 1
   ✓ Office / Fortran / Tecplot / Scientific Work Place 5: Excellent; Number of years: 10

2. Non-academic professional skills

   ✓ Oxycoupages techniques,
   ✓ Cutting techniques and processing of flat glass,
   ✓ Techniques for grinding the cutters.

3. Languages

   ✓ Arabic: Native
   ✓ French: Read, written and spoken
   ✓ English: Read, written and spoken

4. Others expertises (invited reviewer)

✓ *Elsevier Pub.*: Applied Mathematical Modelling, Ain Shams Engenieering Journal, Engineering Science and Technology, an International Journal, Intenational Journal of Heat and Mass Transfers, Surface and Coating Technologies etc.
   ✓ *SAGE Pub.*: Advances in Mechanical Engineering.
   ✓ *ISSRES Pub.*: CFD Letters.
   ✓ *Begell House Pub.*: Heat Transfer Research.
   ✓ *Society of Thermal Engineers of Serbia*: Thermal Science.
   ✓ *Tech Science Press Pub.*: Fluid Dynamics and Materials Processing, Computer Modeling in Engineering and Scinces.
   ✓ *EDPsciences Pub.*: Mechanics and Industry, European Journal of applied Physics
   ✓ *Springer Pub.*: Iranian Journal of Science and Technology, Transactions of Mech. Engineering.

VI. ATTACHED VOLUMES

Volume 1: thesis and master mémoires
Volume 2: Report of activities
Volume 3: Course handouts,

Volume 4: Diplomas,
Volume 5: Publications in journals or reviews,
Volume 6: Communications + acceptance letters