

Citations: 781 Indice h: 16 🗖 Indice i10: 22

CURRICULUM VITAE

Prof. Dr. Said KOUACHI

Contents

1. Personal information

- 2. Education
- 3. <u>Teaching and Supervision</u>: <u>Teaching Experience</u>(Graduate teaching, Postgraduate teaching), <u>Supervision</u> (M. Sc. Advisor, Theses Supervision, Theses in preparation, Thesis Committees), <u>Courses Taught</u> (graduate Courses, postgraduate Courses) Short courses and workshops attended
- **4. Research Work:** <u>Publications</u>, Submitted Work, Works in preparation(books, papers), <u>Funded Projects</u>, Conference Presentations, Conference Committees, Conference Attendance,
- **5.** Citations: Reference Citations, Review Citations
- 6. <u>Refereeing</u>.
- 7. Visits and Seminars.
- 8. Committees.
- 9. Skills.



1. Personal information

Address: Department of Mathematics & Informatics, College of Sciences & Technology, University of Khenchela, BP 1252, Road of Batna, 40004, Algeria.

a +213(0)32735132(H)
+213(0)32731236(O)
↓213(0)32731303
+213(0)668325617 **E-mail:** kouachi@ hotmail.com kouachi@univ-khenchela.dz

Web: http://www.saidkouachi.dz
Web: http://www.saidkouachi.webs.com
Function: Full Professor
Major Field: Partial Differential Equations.
Area of research interest (Primary): Parabolic systems, Reaction Diffusion Systems, Attractors.
Area of research interest (Secondary): Algebra. Combinatory Analysis.

2. Education

- 2.1. Ph. D. Applied Mathematics, University of Paris VII, France, June 1985.
- 2.2. Qualification to Posts Of Associate Professors, Applied Mathematics, National Academic Commission, Section No 26, France, September 1994.
- 2.3. Ph. D., in Partial Differential Equations, University of Annaba, Algeria, June 1999.
- 2.4. M. Sc., Applied Mathematics, University of Paris VII, France, June 1982.
- 2.5. B. Sc., Functional Analysis, University of Constantine, Algeria, July 1981.
- 2.6. Baccalaureate, Sciences, by distance learning, Algeria, June 1979.
- 2.7. Baccalaureate, Maths, College Zinet, Aïn Beïda, Algeria, June 1977.

3. Teaching and Supervision

3.1. Teaching Experience

Undergraduate Teaching

- ✓ 12/2020-present: Professor, University of Khenchela, Algeria.
- ✓ 09/2008-08/2020: Professor, Qassim University, KSA.
- ✓ 12/2004-08/2008: Professor, University of Khenchela, Algeria.
- ✓ 06/2003-12/2004: Associate Professor, University of Khenchela, Algeria.
- ✓ 10/1999-06/2003: Associate Professor, University of Tebessa, Algeria.

- ✓ 10/1997-10/1999: Assistant Professor, University of Tebessa, Algeria.
- ✓ 09/1994-08/1996: Senior Lecturer Fateh University, Libya.
- ✓ 09/1991-09/1994: Senior Lecturer, University of Oum El Bouaghi, Algeria.
- ✓ 09/1988-09/1991: Senior Lecturer, University of Annaba, Algeria.
- ✓ 09/1985-09/1988: Lecturer, University of Annaba, Algeria.

Graduate Teaching

- ✓ 12/2020-present : Professor, University of Khenchela, Algeria.
- ✓ 10/2008- 08/2020: Professor: Qassim University, KSA.
- ✓ 07/2008: Visiting Professor: African University of Sc. & Tech., Abuja, Nigeria.
- ✓ 12/2010: Visiting Professor: University of Nancy, France (invited).
- ✓ 12/2008: Visiting Professor: University of Nancy, France (invited).
- ✓ 12/2007: Visiting Professor: University of Nancy, France (invited).
- ✓ 09/2006-06/2007: Visiting Professor, University of Tebessa, Algeria.
- ✓ 09/2000-06/2004: Visiting Professor, University of Annaba, Algeria.
- ✓ 09/2000-06/2001: Associate Professor, University of Tebessa, Algeria.
- ✓ 09/1999-06/2000: Visiting Professor, University of Laghouat, Algeria.
- ✓ 09/1992-06/1996: Visiting Professor, University of Annaba, Algeria.
- ✓ 09/1987-06/1988: Visiting Professor, University of Guelma, Algeria.

3.2 Supervision

3.2.1 Theses achieved

- ✓ (01) Master, University of Khenchela, Algeria, 06/29/2023.
- ✓ (15) Masters, Qassim University, KSA, 2008-2020.
- ✓ Ph. D, University of Constantine, Algeria, 06/25/2008.
- ✓ Ph. D, University of Constantine, Algeria 04/07/2010.
- ✓ Ph. D, University of Annaba, Algeria, 01/25/2004.
- ✓ (04) Masters, University of Tebessa, Algeria, 06/29/2004, 06/29/2004, 10/23/2003, 05/23/2003.
- ✓ M. Sc., University of Constantine, Algeria, 05/28/2002.
- ✓ M. Sc., Higher College of Kouba, Algeria, 09/ 13/1999.
- ✓ M. Sc., University of Annaba, Algeria, 09/1993.
- ✓ 02 Ph. D.'s, in preparation, University of Constantine, Algeria.

3.2.2 Thesis committees

- ✓ (01) Ph. D, University of Khenchela, Algeria, February 2024.
- ✓ (01) Ph. D, University of Batna, Algeria, February 2024.
- ✓ (01) Ph. D, University of Tebessa, Algeria, june 2022.
- ✓ (01) Ph. D, University of Oum El-Bouaghi, Algeria, October 2022.

- ✓ (03) Ph. D, University of Khenchela , 2020-2022.
- ✓ (05) Master, Qassim University, KSA, April, 2020.
- ✓ (05) Master, Qassim University, KSA, April, 2019.
- ✓ (01) Master, Qassim University, KSA, December 7, 2018.
- ✓ (01) Master, Qassim University, KSA, April 26, 2018.
- ✓ (04) Masters, Qassim University, KSA, 06/2012.
- ✓ (06) Masters, Qassim University, KSA, 02/2012.
- ✓ (06) Masters, Qassim University, KSA, 06/2011.
- ✓ (06) Masters, Qassim University, KSA, 02/2011.
- ✓ (03) Masters, Qassim University, KSA, 06/2010.
- ✓ (02) Masters, Qassim University, KSA, 02/2010.
- ✓ (02) Masters, Qassim University, KSA, 06/23/2009.
- ✓ (03) Masters, Qassim University, KSA, 02/09/2009.
- ✓ Ph. D., University of Constantine, Algeria, 22/01/2008.
- ✓ (02) Ph. D., University of Annaba, Algeria, 09/2006, 10/18/2000.
- ✓ Ph. D., Higher College of Kouba, Algeria, 10/2004.
- ✓ Ph. D., USTHB. Alger, Algeria, 09/15/2004.
- ✓ Ph. D., University of Constantine, Algeria, 09/17/2000.
- ✓ (03) Masters, University of Laghouat, Algeria, 06/27/2001.
- ✓ (03) Masters University of Annaba, Algeria, 06/2004, 06/2003, 05/09/2000.
- ✓ (03) Masters, University of Tebessa, Algeria, 09/2003.
- ✓ M. Sc., University of OEB, Algeria, 09/2003.

3.3. Courses taught, Short courses and workshops attend.

3.3.1. Undergraduate Courses

- ✓ 09/2021-present: Analysis, Khenchela University, Algeria.
- ✓ 12/2020-07/2021 : Analysis, Ecole Nationale Supérieure des Forêts, Algeria.
- ✓ 2009-08/2020: Analysis 1, Differential Geometry, Algebra (Rings, Ideals and Fields), Qassim University, KSA.
- ✓ 2008- 2010: Analysis 1, Diff. Equations, Algebra (Rings, Ideals and Fields), Qassim University, KSA.
- ✓ 2003-2008: Analysis 1, Analysis 2, Linear Algebra, Diff. Equations, University of Khenchela, Algeria.
- ✓ 1997-2003: Analysis 1, Analysis 2, Linear Algebra, Differential Equations, Numerical Analysis, Numerical Methods, Sobolev Spaces, University of Tebessa, Algeria.
- ✓ 1994-1996: Analysis 1, Analysis 2, Linear Algebra, Differential Equations, Fluid Mechanics, Continuous Mechanics, Feteh University, Libya.
- ✓ 1991-1994: Analysis 1, Analysis 2, Linear Algebra, Differential Equations, University of OEB, Algeria.

- ✓ 1989-1991: Calculus, Numerical Analysis, University of Annaba, Algeria.
- ✓ 1987-1989: Diff. Equations, Linear Algebra, Complex Analysis, University of Annaba, Algeria.
- ✓ 1985-1987: Infinite Series in Banach spaces, integration, University of Annaba, Algeria.
 ✓

3.3.2. Graduate Courses.

- ✓ 2021-2022: Reaction Diffusion Systems (PDE's), University of Khenchela, Algeria.
- ✓ 2008-2020: Algebra (Modules, Rings, Ideals and Fields), Abstract Algebra, Qassim University, KSA.
- ✓ 2018-present: Partial differential Equations (Theory and Applications) Qassim University, KSA.
- ✓ 2018-present: Stability Theory, Qassim University, KSA.
- ✓ 2017-present: Ordinary differential Equations (Theory and Applications) Qassim University, KSA.
- ✓ 2010-2011:Ordinary differential Equations (Theory) Qassim University, KSA.
- ✓ 2006-2007: Numerical Analysis, Numerical Methods, University of Tebessa, Algeria.
- ✓ 2000-2001: Reaction Diffusion Systems (PDE's), University of Tebessa, Algeria.
- ✓ 2002-2003: PDE's of parabolic type, University of Annaba, Algeria.
- ✓ 2000-2004: Reaction Diffusion Systems (PDE's), University of Annaba, Algeria.
- ✓ 1996-1997: PDE's, University of Lagouat, Algeria.
- ✓ 1992-1993: PDE's, University of Annaba, Algeria.

workshops attend.

May 06, 2012, Strategic Plan for the Management of Scientific Publishing and Translation, Qassim University, KSA.

4. Reaserch and work

4.1. Publications

- 1. S. Godara, S. Kundu, S. Kouachi and N. Kumari, Stability analysis and optimal control of a delayed epidemic model with two aware classes, accepted for publication in Mathematical Methods in the Applied Sciences (2023).
- Aouafi, R., Zaidi, A., Kouachi, S. *et al.* A remark on "Dynamical behavior of a fractional three-species food chain model" [Nonlinear Dynamics, 95, February 2019]. *Nonlinear Dyn* 111, 13641–13651 (2023).
- Dhuli, Sateeshkrishna, Said Kouachi, Anamika Chhabra, and Yatindra Nath Singh. "Network Robustness Analysis for IoT Networks using Regular Graphs." IEEE Internet of Things Journal 9(11) (2022).
- 4. E. M. Takyi, K. A. Fordjour, S. Kouachi and R. D. Parshad, A remark on "Global dynamics of a tritrophic food chain model subject to the Allee effects in the prey

population with sexually reproductive generalized-type top predator" [Comp and math Methods. 2019, E1079, pp 1-23] Computational and Mathematical Methods, First published: 15 March 2021. https://onlinelibrary.wiley.com/doi/abs/10.1002/cmm4.1159

- 5. K. P. Das and S. Kouachi, Effect of boundary conditions in controlling chaos in a tri-trophic food chain with density dependent mortality in inter-mediate predator, , Vol. 28, No. 1, pp. 1-27, Cambridge, UK; Florida, USA, (2021).
- 6. S. Kundu, N. Kumari, S. Kouachi and P. Kundu, Stability and bifurcation analysis of a heroin model with diffusion, delay and nonlinear incidence rate, Model. Earth Syst. Environ. (2021).
- S. Kouachi, Sateeshkrishna Dhuli and Y. N. Singh, Convergence Rate Analysis of Periodic Gossip Algorithms for One-Dimensional Lattice WSNs, IEEE Vol. 20, Issue: 21 (November1, 2020). A
- R. D. Parshad, E. M. Takyi and S. Kouachi, A remark on "Study of a Leslie-Gower predator-prey model with prey defense and mutual interference of predators" [Chaos, Solitons & Fractals 120 (2019) 1–16], Chaos, Solitons and Fractals 123 (2019) 201–205. A
- 9. R. D. Parshad, S. Kouachi and Jingjing Lyu, Global Dynamics of a PDE Model for Eradication of Invasive Species, International Journal of Innovative Science and Research Technology Volume 4, Issue 4, April 2019.
- Yan He, Kevin Wright, S. Kouachi and Chih-Chun Chien, Topology, edge states, and zero-energy states of ultracold atoms in one-dimensional optical superlattices with alternating on-site potentials or hopping coefficients, Physical Review A 97, 023618 (2018). Cited 5 times.A
- 11. Chih-Chun Chien, S. Kouachi, K. A. Velizhanin, Y. Dubi, and M. Zwolak, Thermal transport in dimerized harmonic lattices: Exact solution, crossover behavior, and extended reservoirs, Phys. Rev. E 95, 012137 – Published 23 January (2017). Cited 7 times.A
- R. D. Parshad, E. Quansah, M. A. Beauregard and S. Kouachi, On "small" data blow-up in a three species food chain model, Computers and Mathematics with Applications 73 pp. 576-587(2017). Cited 6A times.https://www.sciencedirect.com/science/article/pii/S0898122116306897
- 13. R. D. Parshad, S. Kouachi, N. Kumari and H. Ait Abderrahmane, Global Existence and Long Time Dynamics of a Four Compartment Brusselator Type, Dynamics of Continuous, Discrete and Impulsive Systems, Series A: Mathematical Analysis 24, 79-120 (2017).
- R. D. Parshad, S. Kouachi and N. Kumari, A comment on "Mathematical study of a Leslie-Gower type tritrophic population model in a polluted environment" [Modeling in Earth Systems and Environment 2 (2016) 1–11] Model. Earth Syst. Environ. (2016) 2:93, Cited one time.
- 15. S. Kouachi, The Cauchy interlace theorem for symmetrizable matrices, arXiv:1603.04151, 2016.
- S. Kouachi, Explicit Eigenvalues of some perturbed heptadiagonal Matrices via recurrent sequences, Lobachevskii Journal of Mathematics, Vol. 36, issue 1, pp 28-37(2015). Cited two times.

- Carlos M. da Fonseca, S. Kouachi, Dan A. Mazilu and Irina Mazilu, A Multi-Temperature Kinetic Ising Model and the Eigenvalues of Some Perturbed Jacobi Matrices, Applied Mathematics and Computation 259 (2015) 205–211. Cited 4 times. A
- R. D. Parshad, N. Kumari and S. Kouachi, A remark on "Study of a Leslie-Gower-type tritrophic population model" [Chaos, Solitons & Fractals 14 (2002) 1275–1293], Chaos, Solitons and Fractals 71 (2015) 22–28. Cited 19 times. A
- S. Kouachi, Global Existence and Boundedness of Solutions for the General Activator-Inhibitor Model, Matematicki Vesnik, Vol. 66, issue3, pp. 274-282 (2014). Cited one time.
- 20. S. Kouachi, K. E. Yong and R. D. Parshad, Global existence for a strongly coupled reaction diffusion system, <u>arXiv:1403.5597</u>.
- R. D. Parshad, S. Kouachi and J. B. Gutierrez, Global existence and asymptotic behavior of a model for biological control of invasive species via supermale introduction, Communications in Mathematical Sciences, Vol. 11, No. 4, pp. 951–972 (2013). Cited 8 times. A
- 22. S. Kouachi and E. M. Al-Eid, Explicit invariant regions and global existence of solutions for reaction-diffusion systems with a full matrix of diffusion coefficients and nonhomogeneous boundary conditions, Int. J. Open Problems Comput. Math., Vol. 5, No. 1, March, 2012, pp. 16-29. Cited 3 times.
- S. Kouachi, Global existence for coupled reaction diffusion systems modeling some reversible chemical reactions, Dynamics of Partial Differential Equations, Volume 8, Number 2 (June 2011), p. 79-88. Cited 3 times. A
- 24. S. Kouachi, Global existence for reaction diffusion systems without nonlinearities growth condition, Mathematical Methods in the Applied Sciences, volume 34, issue 7(2010), pp. 798-802. Cited 4 times.A
- 25. S. Kouachi and B. Rebaï, Invariant Regions and the Global Existence for Reaction Diffusion Systems with a Tridiagonal Matrix of Diffusion Coefficients, Memoirs on Differential Equations and Mathematical Physics, Volume 51 (2010), 93-108. Cited 5 times.
- 26. S. Kouachi, Explicit Eigenvalues of Several Perturbed Pentadiagonal Matrices, Accepted for publication in International Journal of Pure and Applied Mathematics.
- 27. S. Kouachi, Eigenvalues and Eigenvectors of Some Tridiagonal Matrices with non constant diagonal entries, Appl. Math. (Warsaw) 35 (2008), 107-120.<u>Preprint</u>, <u>http://journals.impan.gov.pl/am/</u>. Cited 11 times.
- S. Abdelmalek and S. Kouachi, A Simple Proof of Sylvester's (Determinants) Identity, Applied Mathematical Sciences, Vol. 2, 2008, no. 32, 1571 - 1580 <u>http://www.m-hikari.com/ams/ams-password-2008/ams-password29-32-2008/salemAMS29-32-2008.pdf</u>. Cited 12 times.
- 29. S. Kouachi, S. Abdelmalek and B. Rebaï, Existence of Global Solutions to Reaction Diffusion Systems via a Lyapunov functional, Accepted for publication in Archivum Mathematicum.

- 30. S. Kouachi, S. Abdelmalek and B. Rebaï, A mathematical proof of Dodgson's algorithm, arXiv: 0712.0362v1 [math.CO] 3 Dec 2007. Cited 5 times.
- S. Abdelmalek and S. Kouachi, Condensation of determinants, arXiv: 0712.0822v1 [math.CO] 5 Dec 2007.
- 32. S. Abdelmalek and S. Kouachi, Proof of Existence of Global Solutions for m-Components Reaction Diffusion Systems with Mixed Boundary Conditions via the Lyapunov Functional Method, J. Phys. A: Math. Theory. 40 (2007) 12335-12350. (Cited 16 times). A
- 33. S. Kouachi, Eigenvalues and Eigenvectors of Tridiagonal matrices, Electronic Journal of linear Algebra, Vol 15 (April 2006) pp. 115-133. (Cited 54 times).A
- 34. S. Kouachi, Invariant regions and global existence of solutions for reaction diffusion systems with a full matrix of diffusion coefficients and no homogeneous boundary conditions, Georgian mathematical journal Vol 11(2004), Number 2, pp 349-359...\Rréaction-diffusion\kouachigjm.pdf. Cited 16 times. A
- 35. S. Kouachi, Global existence of solutions in invariant regions for reaction diffusion systems with a balance law and a full matrix of diffusion coefficients, E. J. Qual. Theory Diff. Equ., No. 4. (2003), 1-10. Cited 10 times.A
- 36. S. Kouachi, Existence of global solutions to reaction diffusion systems with no homogeneous boundary conditions via a Lyapunov functional. Electron. J. Diff. Eqns Vol. 2002(2002), No. 88, pp. 1-13. (Cited 23 times).A
- S. Kouachi, Global existence of solutions for reaction diffusion systems with a full matrix of diffusion coefficients and no homogeneous boundary conditions. E. J. Qual. Theory Diff. Equ. No.2 (2002), 1-10. Cited 14 times.A
- S. Kouachi, Uniform boundedness and global existence of solutions for reaction diffusion systems with a balance law and a full matrix of diffusion coefficients, E. J. Qual. Theory Diff. Equ., No. 7. (2001), 1-9. Cited 7 times.A
- S. Kouachi, Global existence of solutions to reaction diffusion systems via a Lyapunov functional. E. J. Diff. Eq. Vol. 2001(2001), No. 68, 1-10. (Cited 46 times).A
- 40. S. Kouachi and A. Youkana, Global existence and asymptotics for a class of reaction diffusion systems. Bul. Polish Academy Sc. V. 49, N° 3 (2001). (Cited 35 times). Scopus
- 41. M. Kirane and S. Kouachi, Global solutions to a system of strongly coupled reaction-diffusion equations. Nonlinear Analysis Theory, Methods and Applications. Volume 26, number 8 (1996). (Cited 33 times).A
- 42. M. Kirane, S. Kouachi and N. Tatar, Nonexistence of global solutions to some quasi-linear hyperbolic equations with dynamic boundary conditions. Math-Nachr 176 (1995). Cited 11 times.
- M. Kirane and S. Kouachi, A strongly nonlinear reaction diffusion model for a deterministic diffusive epidemic. Japan Journal of Industrial and Applied Mathematics. Volume 12, number 1, February 1995. Cited 5 Times.A



- 44. M. Kirane and S. Kouachi, Asymptotic behavior of a nonlinear model for the geographic diffusion of infectious diseases. Qualitative aspects and applications of nonlinear evolution equations (Trieste, 1993), *163-167*, World Sci. Publishing, River Edge, NJ, *1994*.
- 45. M. Guedda, M. Kirane and S. Kouachi, Global smooth solutions to a coupled nonlinear wave equations. Preprint LAMIFA 94/01, Amiens, January 1994.
- 46. M. Kirane and S. Kouachi, Asymptotic Behavior for a system describing epidemics with migration and spatial spread of infection. Dynamic Systems and Applications. Volume 2, number 1, March 1993. pp. 121-131. Cited 15 times.A

4.2. Submitted work

- 1. R. D. Parshad, S. Kouachi and R. K. Upadhyay, Long time dynamics of a realistic food chain model with generalist top predator, submitted to Applicable Analysis. Also submitted to Differential Equations and Dynamical Systems.
- 2. S. Kouachi, Global existence for systems of tripled reaction diffusion equations modeling some reversible chemical reactions, submitted to Advances in mathematical physics.
- **3.** S. Kouachi, Explicit Eigenvalues of several perturbed pentadiagonal Matrices via recurrent sequences, submitted to Mathematica Pannonica.

4.3. Works in preparation

Books (in preparation)

- 1. S. Kouachi, Differential Geometry (undergraduate)
- 2. S. Kouachi, Numerical Analysis (undergraduate)
- 3. S. Kouachi, Rings and Fields (undergraduate).
- 4. S. Kouachi, On reaction diffusion systems (Graduate).

Papers

- 1. R.D. Parshad and S. Kouachi, Comments on paper "On Large and Small Data Blow-Up Solutions in the Trojan Y Chromosome Model."
- 2. S. Kouachi, Eigenvalues and eigenvectors of multidiagonal matrices.
- 3. S. Kouachi, Existence of global solutions to reaction diffusion systems with a full matrix of diffusion and non-homogeneous boundary conditions.

4.4. Funded Projects

1. 2021-2025, Effects of diffusion in controlling chaos in some tri-trophic food chains. University of Khenchela, Algeria, Code: C00L03UN400120220001.

- 2017-2019: A Novel Control for Eradication of Invasive Species: Mathematical Modeling, Analysis and Experiments. , Qassim University, KSA, achieved, Code: cos-2016-1-12-I-1327.
- 3. 2015-2016: Existence and Asymptotic of Solutions to fourth components system describing Some Chemical Reactions. Number 3388, , Qassim University, KSA, achieved.
- 4. 2010-2011: Applied mathematics to environment in Saudi Arabia, Qassim University, KSA, achieved.
- 5. 2006-2007: Partial Differential Equations and applications, University of Batna, Algeria.
- 6. 2006-2007: Existence and nonexistence of solutions for Partial Differential nonlinear systems, University of Annaba, Algeria.
- 7. 2005-2006: Minerals, University of Tebessa, Algeria.
- 8. 2005-2007: Partial Differential Equations and Statistics University of Annaba, Algeria.
- 9. 2002-2005, Partial Differential Equations, University of Annaba, Algeria.
- 10. 2000-2003: Applied mathematics to environment, National Agency of Development Research, Algeria.
- 11. 1998-2001: Theory of the biologic disaster, University of Tebessa, Algeria.
- 12. 2000-2003: Global existence of solutions to reaction-diffusion systems with a full matrix of diffusion, University of Tebessa, Algeria.
- 13. 2000-2003: Invariant regions to reaction diffusion systems with a full matrix of diffusion, University of Tebessa, Algeria.

4.5. Conferences presentations

- 1. S. Kouachi, June 08, 2023, Global existence of solutions of reaction-diffusion systems, , Department of mathematics and Informatics, Sciences and Technology College, Tebessa University, Algeria.
- 2. Chair of a session of the Ieee international conference on recent advances in mathematics and Informatics (icrami'2021), September 21-22, 2021, Tebessa University, Algeria.
- 3. S. Kouachi, Applications of the reaction-diffusion systems, 10/2021, Department of mathematics and Informatics, Sciences and Technology College, Khenchela University, Algeria.
- 4. S. Kouachi, On reaction-diffusion systems, 05/2016, Department of mathematics, Sciences College, Qassim University, KSA.
- 5. S. Kouachi, On reaction-diffusion systems, 05/2015, Department of mathematics, Sciences college, Qassim University, KSA.
- 6. S. Kouachi, On reaction-diffusion systems, 02/2013, Department of mathematics, Sciences college, Qassim University, KSA.
- 7. S. Kouachi, On reaction-diffusion systems, 02/2010, Department of mathematics, Sciences college, Qassim University, KSA
- 8. S. Kouachi, On Epidemic propagation, 02/2009, Sciences college, Qassim University, KSA.
- 9. S. Kouachi, Invariant regions and global existence of solutions for tripled reaction-diffusion equations with a full matrix of diffusion coefficients and no

homogeneous boundary conditions, The Third International Conference on Mathematical Sciences- ICM 2008, March 3-6, 2008, Al Ain, UAE. <u>ICM 2008</u> (invited)

- S. Kouachi, Global existence for a tripled reaction diffusion system with a full matrix of diffusions. International conference on differential equations, Equadiff 2003, Hasselt- Belgium, July 22-26, 2003. Pdf (invited)
- 11. S. Kouachi, Global existence for reaction diffusion systems with a full matrix of diffusions and no homogeneous boundary conditions, workshop on differential equations and applications, University of Annaba, Algeria, October 14-15, 2002.
- S. Kouachi, Global existence and asymptotic behavior of solutions for a class of reaction diffusion systems, First SIAM–EMS Conference "AMCW" 2001, September 2 – 6, 2001, Berlin. <u>pdf</u> (invited)
- S. Kouachi, polynomial functional giving *Lp*-bounds and global existence for solutions of reaction-diffusion systems, Czechoslovak International Conference on Differential Equations and Their Applications, EQUADIFF 10, Prague, Czech Republic, August 27–31, 2001 (invited).
- S. Kouachi, Global existence of solutions to reaction diffusion systems, International collogue of mathematics, University of Houari boumediene, Algeria , May 21-24, 2000 Algeria.
- 15. S. Kouachi, Global existence and asymptotic for a class of reaction diffusion systems, national collogue of mathematics, University of Tebessa, Algeria , may 7-9, 2000.

4.6. Conferences Committees

- 1. September 21-22, 2021, chairing one of the sessions in the IEEE International Conference on Recent Advances in Mathematics and Informatics (ICRAMI'2021), University of Tebessa, Algeria.
- 2. May 05-06, 2002: Mathematical Methods and Didactics, Chairman scientific committee & member of the Organizing committee, University of Tebessa, Algeria.
- 3. May 07-09, 1999: Math. National Symposium, chairman Scientific Committee & member of the Organizing Committee, University of Tebessa, Algeria.

4.7. Conference attendance

- 1. November 19-21, 2007: International Conference on nonlinear analysis, University of Setif, Algeria.
- 2. November, 3-5, 2007: International Conference on PDE & Applications, University of Guelma, Algeria.
- 3. May 8-10, 2006: Second international Conference on Electrical Systems, Electrical Engineering, University of OEB, Algeria.
- 4. May 13-18, 2006: Workshop on EDA/EDO, Tipaza, Algeria.

5. Refereeing, Editorial Board and Evaluator

5.1. Editorial Board

- Editor in chief, Journal of Mathematics, Engineering and Computer, university of Khenchela (to appear).
- International Journal of open Problems in Computer Science and Mathematics.
- International Journal of Mathematical Sciences and Engineering Applications.
- International Multi-Conference on engineering and Technological Innovation.
- Journal of Natural Sciences and Mathematics, KSA.
- JP Journal of Algebra, Number Theory and Applications. <u>pphmj.com</u>

5.2. Refereeing

- Miskolc Mathematical Notes
- Acta Mathematica Scientia
- Applied Mathematics and Computers.
- Acta Applicanda Mathematicae.
- American Mathematical Society (Mathematical Reviews).
- Computers and Mathematics with Applications.
- Communications in Pure and Applied Analysis.
- Electronic Journal of Qualitative Theory of Differential Equations.
- Electronic Journal of Differential Equations.
- Journal of applied mathematics. <u>Pdf</u>
- International Journal of Biomathematics
- Linear Algebra and Applications.
- Premier Publishers Journal.
- Special Matrices journal.
- The European Physical Journal Plus

5.3. Evaluator

- 05/2018: Evaluator for academic promotion to the rank of associate professor in **Northern Border** University, KSA.
- 05/2017: Evaluator for academic promotion to the rank of associate professor in **Jazan** University, KSA.
- 11/2017: Evaluator for mathematics project of Al Majmaah University, KSA.
- 07/2014: Evaluator for academic promotion to the rank of associate professor in **Mu'tah** University, Jordan.
- Evaluator for books in Qassim University.

3.4 Builder

- May 2022, Builder of the Doctorate program in Applied Mathematics, University of Khenchela, Algeria.
- 2018: Editor-in-chief and Builder of Applied mathematics master program in the Mathematics Department, Sciences College, Qassim University, KSA.

6. Visits/ Seminars

6.1. Some Seminars

- O7-13 February, 2024; Speaker in Recents Trend in Biomathematics And Dynamical System, Bifurcation, Chaos and Numerical Methods (via Google Meet). Organised by department of mathematics mahadevananda mahavidyalayabarrackpur, kolkata -120 India.
- December 18-19, Speaker in: Study days on Mathematics and Computer (SDMC'2023; On the applications of the Reaction Diffusion Systems to biology, chemistry, physics...
- May 12, 2022, Speaker in: Study Day in Mathematics 'Recent Research in Applied Mathematics''.
- March 2022, Seminar On Reaction Diffusion systems, Laboratoire System Dynamics and Control Laboratory, University of Oum El Bouaghi.
- 06/2014: Reaction Diffusion systems with full Diffusion Matrices, Open day on Analysis and PDE, Sciences College, Qassim University, KSA.
- 03/2009: On Reaction Diffusion systems, Physics Department, Sciences College, Qassim University, KSA.
- 05/2009: Global Existence of Reaction Diffusion systems, Mathematics Department, Sciences College, Qassim University, KSA.
- 09/2001: Global solutions to reaction diffusion systems, University of Tebessa, Algeria.
- 10/2000: Polynomial Lyapunov Functional giving global existence of solutions to reaction diffusion systems, USTHB, Algeria.
- > 09/ 1999: On reaction diffusion systems, ENS. Kouba, Algeria.

6.2.Some Visits

- > 06/2003: University of Paris Sud, Paris, France.
- > 12/2002: University Cath. Louvain, Bruxelle, Belgium.
- > 10/1995: Faculty of Sciences, Al Ain, EUA.
- ▶ 03/1989 & 09/1990: University of Paris 7, Paris, France.

7. Committees

- 2022-2025: President of the scientific committee of the department of mathematics and informatics, Abbes Laghrour University of Khenchela, Algeria.
- \circ 01/2021-present: Member of the Deontology Committee of
- 12/2020-present: President of the Follow-up Committee for Mobility and Cooperation Programs between Abbs Laghrour University and International Institutions.



- 2012-2014: Member of the Research Centre, Sciences College, Qassim University, KSA.
- 2011-2013: Representative of Sciences College's graduate studies, Qassim University, KSA.
- 2010-2012: Responsible of the graduation, Mathematics Department, Sciences College, Qassim University, KSA.
- 1999-2002 & 2005-2008: Expert of the National Agency of Development and University Research (ANDRU).
- 10/2008-present: Member of Scientific Committee, Mathematics Department, Sciences College, Qassim University, KSA.
- First semester 2008, President of the fundamental courses Committee, Mathematics Department, Sciences College, Qassim University, KSA.
- 10/2008-present: Algebraic Committee President, Mathematics Department, Sciences College, Qassim University, KSA.
- 10/2008-present: Member of the Differential Equations, Postgraduate Studies and cultural Committees, Mathematics Department, Sciences college, Qassim University, KSA.
- 2003-present: Scientific Committee, Sciences Institute, University of Khenchela (chairman).
- 2000-2003: Member of the Scientific Committee, Sciences Institute, University of Tebessa.
- 2000-2003: Scientific Committee, Mathematics Department, University of Tebessa (chairman).
- 1999-2003: Permanent member of the mathematical national educational committee, Algeria.

8. Skills

a. Computer

Word, Excell, Swp, Latex, Maple, Mathematica, Matlab

b. Foreign Languages

Arabic, English, French.

