

CURRICULUM VITAE



Personal information

- **Personal**
 - Prof. **Ahcene MERAD**
 - Professor, Department of Mathematics, Laboratory of Dynamical Systems and Control, University of Oum El Bouaghi, Algeria.
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 - **Google Scholar:**
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Education

- **Ph.D.'s degree** in Analysis, University of Jijel-Algeria
- **Magister's degree** in Analysis, University of Jijel-Algeria
- **D.E.S degree** in Algebra, University of Constantine1-Algeria.

Functions and Affiliations

- **Professor**, Department of Mathematics , University of Oum El Bouaghi, Algeria, from 2021 to present.
- **Associate professor**, Department of Mathematics , University of Oum El Bouaghi, Algeria, from 2015 to 2020.
- **Head of Laboratory** of Dynamical Systems and Control.

Teaching modules

- 1) Analysis1, Analysis2
- 2) Analysis3 , Analysis4
- 2) Algebra 2
- 3) Numerical Analysis1, Numerical Analysis1
- 4) Mathematical physics Equations
- 5) Topology
- 6) Integral Transformation in L_p
- 7) Functional Analysis1, Functional Analysis2.

International publications

1. Jesus Martin Vaquero and **Ahcene Merad**, Existence, uniqueness and numerical solution of a fractional PDE with integral conditions, *Nonlinear Analysis: Modelling and Control*, Vol. 24, No. 3, 368–386, (2019).
2. Aggoun Karim and **Ahcene Merad**, On a Class of Caputo Time Fractional Problems with Boundary Integral Condition, *Moroccan Journal of Pure and Applied Analysis*, Volume 7(3), Pages 400–412, (2021).
3. Djamila Chergui, **Ahcene Merad**, Marwan M. Abdeldayem and Archer Heindric, Existence and Uniqueness for Multi-Term Sequential Fractional Integro-Differential Equations with Non-Local Boundary Conditions, *Appl. Math. Inf. Sci.* 15, No. 3, 271-284 (2021).
4. Abdelhalim Necib and **Ahcene Merad**, Laplace Transform and Homotopy Perturbation Methods For Solving The Pseudohyperbolic Integrodifferential Problems with Purely Integral Conditions *Kragujevac Journal of Mathematics*, Volume 44(2), Pages 251–272, (2020).
5. Djamila Chergui, Taki Eddine Oussaeif_ and **Ahcene Merad**, Existence and uniqueness of solutions for nonlinear fractional differential equations depending on lower-order derivative with non-separated type integral boundary conditions, *AIMS Mathematics*, 4(1): 112–133, (2019).
6. Djibibe Moussa Zakari and **Ahcene Merad**, On Solvability of the third pseudo-parabolic fractional equation with purely nonlocal condition, *Advances in Differential Equations and Control Processes*, Volume 23, Number 1, , Pages 87-104 (2020).
7. Djibibe Moussa Zakari, Soampa Bangan and **Ahcene Merad**, Two sided a priori estimates of a mixed problem with boundary integral conditions for a certain parabolic fractional equation, *Far East Journal of Mathematical Sciences (FJMS)*, Volume 127, Number 2, , Pages 79-90 (2020).
8. Aicha Sakhri and **Ahcene Merad**, A Problem with second kind's nonlocal condition for pseudohyperbolic equation, *TJMM*, 12 No. 1, 37-44 (2020).
9. Saadoune Brahim, **Ahcene Merad** and Adem Kilicmen, On the theoretical and numerical aspect of fractional differential equations with purely integral conditions, *MPDI-Mathematics* **2021**, 9, 1987.
<https://doi.org/10.3390/math9161987>.
10. **Ahcene Merad** and Jesus Martin Vaquero, Galarkin method for two-

dimensional Hyperbolic integrodifferential equation with purely integral conditions, Applied Mathematics and Computation 291 (2016) 386–394.

11. **Ahcene Merad** and Samir Hadid , Analytical Solution of non integer extraordinary differential equation via Adomian decomposition method, Malaya Journal of Matematik, 4(1)(2016) 126-135.

12. **Ahcene Merad**, The combined Laplace transform-Adomian decomposition method for solving nonlocal initial boundary value problems, Pan-American Mathematical Journal, Volume 26(2016), Number 2, 22-37.

13. **A. Merad**, Adomian Decomposition Method for Solution of Parabolic Equation to Nonlocal Conditions, Int. J. Contemp. Math. Sciences, Vol 6, , no30, 1491 1496(2011).

14. **A. Merad** and A.L. Marhoune, Strong solution for a high order boundary value problem with integral condition, Turkish Journal of Mathematics, 37: 299- 307(2013).

15. A. Bouziani and **Ahcene Merad**, The Laplace transform method for one dimensional hyperbolic equation with purely integral conditions, Romanian journal of Mathematics and Computer Science, Volume 3, issue 2, P. 191-204(2013).

16. A. Bouziani and **Ahcene Merad**, Numerical Solution for Parabolic Equation with Nonlocal Conditions, Transylvanian Journal of Mathematics and Mechanics, Vol.2, No. 2, P. 121-127(2013).

17. **Ahcene Merad** and A. Bouziani, Solvability the Telegraph Equations with Integral Conditions, TWMS J. App. Eng. Math., Vol. 3, N. 2, pp.245-253(2013).

18. **Ahcene Merad** and Abdelfatah Bouziani, A Computational method for integro- differential hyperbolic equation with integral condition, Commun. Fac. Sci. Univ. Ank. Series A1, Volume 62, Number 1, Pages 131-142 (2013).

19. **Ahcene Merad** and Abdelfatah Bouziani, Laplace transform technique for pseudoparabolic equation with nonlocal conditions, Transylvanian Journal of Mathematics and Mechanics, Vol. 5, No. 1, pp. 59-64 (2013).

20. **Ahcene Merad** , Approximate solution for high order Equations with Integral Conditions, J. Ana. Num. Theor., Vol 2, No. 2, 1-4 (2014).

21. **Ahcene Merad** and A. Bouziani, Numerical Technique for Solving Klein-Gordon Equations with purely Integral Conditions, Mathematica Aeterna, Vol. 4, no. 1, p. 1-11(2014).

22. **Ahcene Merad**, Abdelfatah Bouziani, Numerical solutions of hyperbolic equation with purely integral condition by using Laplace transform method, *Palestine Journal of Mathematics*, Vol. 4(1), 30–36(2015).
23. **Ahcene Merad**, Abdelfatah Bouziani and Cenap Ozel, Inversion Laplacetransform for Integrodifferential Parabolic Equation with Purely Nonlocalconditions, *Hacettepe Journal of Mathematics and Statistics*, Volume44(5)(2015),1087–1097 (ISI Impact Factor 0.433).
24. **Ahcene Merad**, Abdelfatah Bouziani, Cenap Ozel and Adem Kilicman, On Solvability of the Integrodifferential hyperbolic Equation with Purely Nonlocal conditions, *Acta Mathematica Scientia*,(ISI Impact Factor 0.62), Vol.35, issue3, 601-609 (2015).
25. **Ahcene Merad**, Abdelfatah Bouziani and Serkan Araci, Existence and Uniqueness of a Solution for Pseudohyperbolic equation with Nonlocal Boundary Condition, *Applied Mathematics and Information Sciences* (ISI Impact Factor 1.232), Vol.9, N. 2, 1-7 (2015).
26. Samir Hadid and **Ahcene Merad**, Homotopy Analysis method for solving fractional differential equations, *Australian Journal of Basic and Applied Sciences*, 9(32) Special 2015, Pages: 233-237.
27. H Merad, F Merghadi, **A. Merad**, Exact solution of Klein–Gordon equation in fractional-dimensional space, *International Journal of Modern Physics A* 36 (33), 2150258,2021.
28. D. Chergui, **A. Merad**, S. Pinelas, Existence and uniqueness of solutions to higher order fractional partial differential equations with purely integral conditions, *Analysis* 43 (1), 1-13,2023.
29. H. Merad, F. Merghadi, **A. Merad**, Solution of Sakata-Taketani Equation via the Caputo and Riemann-Liouville Fractional Derivatives, *Reports on Mathematical Physics* 89 (3), 359-370,2022.
30. K. Aggoun, **A. Merad**, On a Class of Time Fractional Problems with Mixed Boundary Conditions, *Palestine Journal of Mathematics*, Vol. 11(Special Issue II), 48–56(2022).
31. D. Chergui, **A. Merad**, M.M. Abdeldayem, A Heindric, Existence and Uniqueness for Multi-Term Sequential Fractional Integro-Differential Equations with Non-Local Boundary Conditions *Appl. Math* 15 (3), 271-284,2021.

International and National Conferences

1. **Ahcene Merad**, A Study of Hyperbolic Fractional Differential Equation with Purely Integral Condition, *African Days on Applied Mathematics*, 2-4 nov. 2017, Errachidia-Maroc.

2. **Ahcene Merad**, Existence and Uniqueness of Solution For a Fractional Differential Equation with Integral Conditions, International Workshop On Perspective On High Dimensional Data Analysis, 09-13 Avril 2018, Marrakesh-Maroc.

3. **Ahcene Merad**, Participation sans communication oral, First Sharjah International Mathematics Spring School in PDE's and Numerical Analysis, 25-27 Mars 2017 Sharjah- Emirats Arabes Unis.

4. **Ahcene Merad**, On the time Fractional Differential Equations with Integral Conditions, Congrès International Sur la Modélisation Mathématique et Analyse Numérique, 16-18 Décembre 2019 Meknès-Maroc.

5. **Ahcene Merad**, A Priori Estimates of Solutions for Fractional Differential Equations With Boundary Conditions, Tuniso-Libanese Workshop in Control Theory and Related Fields, 30-31 Octobre 2019 Monastir-Tunis.

6. **Ahcene Merad**, Solvability of Fractional Differential Equations with Boundary Nonlocal Conditions, 30th International Workshop On Operator Theory and Its Applications, 22-26 Juillet 2019 Lisbon-Portugal.

7. **Ahcene Merad**, On the time Fractional Differential Equation with Integral Condition, International Conference On Differential & Difference Equations & Applications, 01- 05 Juillet 2019 Lisbon-Portugal.

8. **Ahcene Merad**, Existence and Uniqueness of the Strong Solution of the time Fractional Integrodifferential Equation with Integral Boundary Conditions, The First Online Conference On Modern Fractional Calculus and Its Application, 04-06 Decembre 2020 Istanbul-Turkey.

9. **Ahcene Merad**, Variational Iteration Method for solving nonlocal problems, Dixième rencontre d'analyse mathématiques et applications « RAMA 10 », Ouargla 07-11 février 2016.

10. **Ahcene Merad** Séminaire International de Mathématiques Appliquées et Simulation, Oum ElBouaghi, 22 au 25 avril 2007.

11. **Ahcene Merad**, Workshop sur les Equation Différentielles, Jijel, 19-24 mai 2007.

12. **Ahcene Merad**, Workshop sur les Equations Différentielles Abstraite et les Equations Ordinaire, Tlemcen, 23-27 mai 2009.

13. **Ahcene Merad**, Colloque International sur les Systèmes Dynamiques Distribuées et Contrôle, OumEl Bouaghi, 08-10 novembre 2009.

14. **Ahcene Merad** Workshop sur les Equations Différentielles Abstraite, Oum El Bouaghi, 17-21 avril2011.
15. **Ahcene Merad**, International Conference on Applied Mathematics and Approximation Theory AMAT 2012, May 17-20, Ankara-Turkey 2012.
16. **Ahcene Merad**, Journées d'Analyse et Approximation d'Equations Aux Dérivées Partielles, Tipaza, 09-11 juin 2012.
17. **Ahcene Merad**, The Algerian-Turkish International Days on Mathematics, Annaba, 09-11 October2012.
18. **Ahcene Merad**, Première Journées Mathématiques et Applications JMAM, Mila 19-21 Octobre2013.
19. **Ahcene Merad**, Colloque National sur les EDP et applications, Bordj Bou Arreridj 28 - 29Octobre 2014.
20. **Ahcene Merad**, Le premier congrès international sur la Modélisation et le Calcul Scientifique en Ingénierie Mathématique (MOCASIM 2014) à Marrakech-Maroc du 19 au 22 Novembre 2014.
21. **Ahcene Merad**, La première conférence nationale sur les Systèmes dynamiques, équations différentielles et application, Oum El Bouaghi 10-11 Mars 2015.
22. **Ahcene Merad**, Cinquième workshop international sur les mathématiques appliquées et la modélisation « WIMAM'2015 », Guelma 25-26, octobre 2015.
23. **Ahcene Merad**, Troisième journées : Problèmes inverses et applications « JIP'15 », Annaba 26-28 octobre 2015.
24. **Ahcene Merad**, International conference on chemistry, physics and mathematics, Cebu-Philippines 30-31 october 2015.
25. **Ahcene Merad**, A Study of time-fractional order differential equation with purely integral conditions, La première édition du colloque national Mathématiques et Equations différentielle, 28Novembre2018, Université Chadli Bendjdid-El Taref.
26. **Ahcene Merad**, Homotopy Perturbation Methods for Solving the Pseudohyperbolic Integrodifferential Problems with Purely Integral Conditions, Journée d'étude sur les Systèmes Dynamiques et les équations Différentielle, 04 Juillet 2018, Université d'Oum El Bouaghi.

Chapter Books

- 1) **Ahcene Merad** and Abdelfatah Bouziani, A Method of Solution for Integrodifferential Parabolic Equation with purely Integral Conditions, Advances in Applied Mathematics and Approximation Theory, Springer Proceeding in Mathematics and Statistics 41, DOI 10.1007/978-1-4614-6393-1_20, New York (2013).

Interests

- **Interests:** PDEs of Hyperbolic Type , Nonlocal PDEs, Integro–Differential Equations, PDEs of Parabolic Type, Fractional Differential Equations, HPM,ADM,VIM, Laplace transform methods