

# Khaled ZENNIR

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## Personal Details

Name Khaled ZENNIR  
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Date and place of birth May 04, 1982, Skikda, Algeria  
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## Employment History

- 09/2015-Now Associate professor- Department of mathematics, college of sciences and arts, Qassim University, Ar-Rass, Saudi Arabia.
- 09/2015-02/2021 Assistant professor- Department of mathematics, college of sciences and arts, Qassim University, Ar-Rass, Saudi Arabia.
- 09/2012-08/2015 Associate professor- University 20 Aôut 1955- Skikda, Algeria
- 03/2009-08/2012 Assistant professor- University of Science and Technology Mohamed Boudiaf, Oran, Algeria.
- 09/2007-08/2008 Lecturer- University 20 Aôut 1955- Skikda, Algeria

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## Career Objective

Keep interest for teaching and innovative research in advanced mathematics to help my institution in achieving its mission and objectives by making best use of my educational ability, skills, efforts and desires.

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## Degrees/Qualifications

- May 2015 Awarded HDR degree (Associate professor in Mathematics): PDEs, University Constantine 1, 25000, Algeria.
- December 2013 Ph.D Thesis in Mathematics: Partial differential equations, University Djillali Liabes of Sidi Bel Abbes, 22000, Algeria
- February 2009 M. Sc. (Magister Thesis) in mathematics: Dynamical system and functional analysis, University Badji mokhtar –Annaba, 23000, Algeria
- June 2006 B. Sc. (Diploma of Graduate Studies ) in mathematics: Numerical analysis, University 20 Août 1955, SKIKDA, 21000, Algeria
- June 2000 High School, New Secondary school of Tamalous, Skikda, 21000, Algeria

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## Areas of research interest

My research work treats different issues and investigates several types of systems in the field of evolution partial differential equations including the existence of solutions and asymptotic analysis for systems of damped PDEs (Nonlinear Hyperbolic Partial Differential Equations: Global Existence, Blow-Up, and Long Time Behavior, Control of PDEs). A major part of my research activities was dedicated to establishing general stability results and explicit energy decay rates for different evolution problems in viscoelasticity. I have established a number of new results which improve and generalize some old results existing in the literature.

I believe that the collaboration has its impact on the quality and diversity of research. Responding to this belief, some of my published papers and ongoing research activities are resulted from collaborative work with other researchers in the same field. For instance, I have ongoing joint works with Dr. Svetlin G. Georgiev (Sofia University, Bulgaria. Email: sgg2000bg@yahoo.com), Dr. Baowei Feng (University of Finance and Economics, China. Email: bwfeng@swufe.edu.cn), Dr. Tosiya Miyasita (Doshisha University, Kyoto, Japan. Email: sk109685@mail.doshisha.ac.jp), Dk. Perikles Papadopoulos (University of West Attica, Athens, Greece. Email: ppapadop@uniwa.gr), Pr. Abderrazek Chaoui (Prince Sattam bin Abdulaziz University, Kingdom of Saudi Arabia. Email: ablazek2007@yahoo.com), Pr. Salah Boulaaras (Qassim University, Kingdom of Saudi Arabia. Email: s.boulaaras@qu.edu.sa), Pr. Benaissa Abbes (University djillali Liabes of Sidi-Bel-Abbes, Algeria. Email: benaissa\_abbes@yahoo.com) and other.

In addition to these research activities, I have reviewed research papers for a number of journals. I am a supervisor of a Ph.D. students and a co-supervisor for other. I attended several conferences and presented seminars inside and outside the department of mathematics of my institution.

## Achievements

- May 2-3, 2023 The First International Conference on Mathematical Sciences and Applications (ICMSA2023), Organized at 8 May 1945 Guelma University, Algeria. Member of Scientific Committee.  
<https://sites.google.com/view/icmsa2023/?fbclid=IwAR13Iu584DhtMKJwSIfYcEw6aqT4Slu9ZaYl0LLyBZPf4RvjfknY0Qa2-Vw>
- May 22-26, 2022 Recent Developments in Ordinary and Partial Differential Equations (Rdopde22), Organized at University of Bejaia, Algeria. Member of Scientific Committee.  
<http://rdopde22.sciencesconf.org/>
- December 11-12, 2021 The first National Conference on Pure and Applied Mathematics (NC-PAM'2021), Organized at University of Laghouat, Algeria. Member of Scientific Committee.  
<https://sites.google.com/view/ncpam2021/home/committees?authuser=0>
- May 26-27, 2021 First International Conference on Pure and Applied Mathematics (IC-PAM'21), Organized at University of Ouargla, Algeria. Member of Scientific Committee.  
<https://ic-pam.sciencesconf.org/resource/page/id/5>
- September 03-10, 2015 Attended and successfully completed " Pedagogical Training" from 3rd september to 10 september 2015 organized by Qassim University, KSA
- November 26-27, 2014 President of the Organizing Committee of the national Days on applied mathematics and its applications, at University 20 Août 1955, Skikda, Algeria.

## Talks in conferences and seminars

- December 18-19, 2022 The 2nd National Conference on Pure and Applied Mathematics (NCPAM'2022), Organized at Amar Telidji University – Laghouat, Algeria. Under title: " On the Bresse-Timoshenko type systems with thermodiffusion effects".
- September 17-19, 2022 The second national conference on mathematics and its applications (CNMA'2022), Organized at University of Bordj Bou Arreridj, Algeria. Under title: " Bresse-Timoshenko type systems with thermodiffusion effects: well-possedness, stability and numerical results".
- May 22-26, 2022 Recent Developments in Ordinary and Partial Differential Equations (Rdopde22), Organized at University of Bejaia, Algeria. Under title: "Stabilization for solutions of plate equation with time-varying delay and weak-viscoelasticity in  $\mathbf{R}^n$ ".
- December 13-14, 2021 The first national conference on mathematics and its applications (CNMA'2021), Organized at University of Bordj Bou Arreridj, Algeria. Under title: "The impact of time-varying delay to stabilize solutions of the plate equation with weak viscoelasticity in  $\mathbf{R}^n$ ".
- December 11-12, 2021 The first national conference on pure and applied mathematics (NC-PAM'2021), Organized at University of Laghouat, Algeria. Under title: "Stability of solution to the plate equation with weak viscoelasticity and time varying delay in  $\mathbf{R}^n$ ".
- August 24-25, 2020 In Uzbekistan-Malaysia international online Conference on Computational models and technologies (CMT2020), Organized at National University of Uzbekistan, Uzbekistan. Under title: "Existence and uniqueness with Ulam stability results for the solution of nonlinear fractional integro-differential equation".  
<http://cmt.nuu.uz/>
- December 18-21, 2017 International Conference on advances in applied mathematics, Organized at University of Hammamet, Tunisia. Under title: "Exponential stability of a viscoelastic wave equation with a time delay in the boundary"
- July 12-15, 2017 30th International Conference of the Jangjeon Mathematical Society Pure and Applied Mathematics, Organized at University of Sciences and Technology Houari Boumedienne Faculty of Mathematics, Algeria. Under title: "Energy decay of solution to plate equation with memory in  $R^n$ "
- December 09-10, 2014 Days on applied mathematics and its applications, Organized at University 20 Août 1955, Skikda, Algeria. Under title: "Decay rate estimate of solution to damped wave equation with memory term in Fourier spaces"
- December 01-02, 2014 Second scientific national days , Organized at Higher Normal School of Technology Education, Skikda, Algeria. Under title: "General decay of solutions of wave equation with density and memory term in  $R^n$ "
- October 27-29, 2014 Seminar on PDE and its applications, Organized at University Bordj Bouariridj, Algeria. Member of the Scientific Committee.
- May 20-22, 2013 Workshop on mathematics modeling and control, Organized at University Badji Mokhtar, Annaba, Algeria. Under title: "Decay results for higher-order degenerate Kirchhoff equation"

- April 17-18, 2013 National conference of mathematics and applications CNMA'13, Organised at University Abbes Laghrour of Khenchela, Algeria. Under title: "On the nonexistence of solutions to degenerately damped system of nonlinear viscoelastic wave equations"
- December 12, 2011 Day of mathematics at University of sciences and technology of Oran, Algeria. Under title: " Global nonexistence of solutions to system of nonlinear viscoelastic wave equations with degenerate damping and source terms".
- November 29-30, 2011 National Days of applied mathematics, JNMA'11 at University 20 Août 1955 SKIKDA, Algeria. Under title: " Blow up for all time of positive initial energy solutions to system of a nonlinear wave equations with degenerate damping and source terms".
- March 01, 2011 Second Day between Algerian-Tunisian searchers of Partial Differential Equations " JATEDPC'2011 " Organized at University of Djillali LIABES, SIDI BEL ABBES, Algeria. Under title: " Existence and exponential growth of solutions for a nonlinear viscoelastic wave equation".
- November 10-12, 2008 The 3rd Days on Differential Equations and Applications "JEDAIII" Organized at the University of ANNABA, Algeria. Under title: "Existence and decay of solutions of a nonlinear viscoelastic hyperbolic equation".
- October 28-30, 2008 The International Seminar on Mathematical Analysis "SIAM" Organized at the University of JIJEL, Algeria. Under title: " Existence and asymptotic behavior of solutions for a nonlinear viscoelastic wave equation".

## Publications

### Published papers

2023

156. Abdelkader Braik, Safa M. Mirgani, Eltigani I. Hassan and Khaled Zennir, Well-Posedness and Energy Decay Rates for a Timoshenko-Type System with Internal Time-Varying Delay in the Displacement, *Symmetry*. 15(10),1878, 1–16, 2023.  
<https://www.mdpi.com/2073-8994/15/10/1878>
155. Nouredine Bahri, Abderrahmane Beniani, Abdelkader Braik, Svetlin G. Georgiev, Zayd Hajjej, Khaled Zennir , Global existence and energy decay for a transmission problem under a boundary fractional derivative type, *AIMS Mathematics*, 8(11), 27605–27625, 2023.  
<https://www.aimspress.com/article/doi/10.3934/math.20231412>
154. Fatima Siham Djeradi, Fares Yazid, Svetlin G. Georgiev, Zayd Hajjej and Khaled Zennir, On the time decay for a thermoelastic laminated beam with microtemperature effects, nonlinear weight, and nonlinear time-varying delay, *AIMS Mathematics*. 8(11), 26096–26114, 2023.  
<https://www.aimspress.com/article/doi/10.3934/math.20231330>

153. A. Braik, Kh. Zennir, E. I. Hassan, A. H. A. Alfedeel and Safa M. Mirgani, Existence and Asymptotic Stability of the Solution for the Timoshenko Transmission System with Distributed Delay, *Axioms* 2023, 12(9), 833.  
<https://doi.org/10.3390/axioms12080777>
152. Svetlin Georgiev, Aissa Boukarou, Zayd Hajjej and Khaled Zennir, Classical Solutions for the Generalized Korteweg-de Vries Equation, *Axioms* 2023, 12(8), 777.  
<https://doi.org/10.3390/axioms12090833>
151. Serrai H., Tellab B., Zennir Kh., On two-order fractional boundary value problem with generalized Riemann-Liouville derivative, *Ufa Mathematical Journal* Vol. 15, 2,(2023) 135-156.  
[https://matem.anrb.ru/en/article?art\\_id=957](https://matem.anrb.ru/en/article?art_id=957)
150. Mohammad Shahrouzi, Jorge Ferreira, Erhan Pişkin & Khaled Zennir, On the Behavior of Solutions for a Class of Nonlinear Viscoelastic Fourth-Order  $p(x)$ -Laplacian Equation, *Mediterr. J. Math.* 20, 214 (2023).  
<https://link.springer.com/article/10.1007/s00009-023-02423-0>
149. Svetlin G. Georgiev, A. Boukarou, Keltoum Bouhali, Khaled Zennir, Hatim M. Elkhair, Elteğani I. Hassan, Alnadhief H. A. Alfedeel and Almonther Alarfaj , Classical Solutions for the Generalized Kawahara–KdV System, *Symmetry* 2023, 15(6), 1159.  
<https://www.mdpi.com/2073-8994/15/6/1159>
148. Mohamed Karek, Sadok Otmani, Keltoum Bouhali, Khaled Zennir, Hatim M. Elkhair, Elteğani I. Hassan, Alnadhief H. A. Alfedeel and Almonther Alarfaj, Existence and Qualitative Properties of Solution for a Class of Nonlinear Wave Equations with Delay Term and Variable-Exponents Nonlinearities, *Axioms* 2023, 12(5), 444, 1-21.  
<https://www.mdpi.com/2075-1680/12/5/444>
147. Abdelkader Moumen, Abderrahmane Beniani, Tariq Alraqad, Hicham Saber, Ekram Eldayed Ali Ahmad, Keltoum Bouhali, Khaled Zennir, Energy decay of solution for nonlinear delayed Transmission problem, *AIMS Mathematics*, 8(6): 13815-13829.  
<http://www.aimspress.com/article/doi/10.3934/math.2023707>
146. Younes Bidi, Abderrahmane Beniani, Keltoum Bouhali, Khaled Zennir, Hatim M. ElKhair, Elteğani I. Hassan and A. M. Alarfaj, Local Existence and Blow-Up of Solutions for Wave Equation Involving the Fractional Laplacian with Nonlinear Source Term, *Axioms* 2023, 12, 343, 1-19.  
<https://www.mdpi.com/2075-1680/12/4/343>
145. Nassima Nasri, Fatima Aissaoui, Keltoum Bouhali, Assia Frioui, Badreddine Meftah, Khaled Zennir and Taha Radwan, Fractional Weighted Midpoint-Type Inequalities for  $s$ -Convex Functions, *Symmetry* 2023, 15(2), 612.  
<https://www.mdpi.com/2073-8994/15/3/612>

144. Abdelkader Moumen, Hamid Boulares, Badreddine Meftah, Ramsha Shafqat, Tariq Alraqad, Ekram E. Ali and Zennir Khaled, Multiplicatively Simpson Type Inequalities via Fractional Integral, *Symmetry* 2023, 15(2), 460. <https://www.mdpi.com/2073-8994/15/2/460>
143. Abderrahmane Beniani, Nouredine Bahri, Rabab Alharbi, Keltoum Bouhali and Khaled Zennir, Stability for Weakly Coupled Wave Equations with a General Internal Control of Diffusive Type, *Axioms* 2023, 12(1), 48. <https://www.mdpi.com/2075-1680/12/1/48>
142. Svetlin Georgiev, Aissa Boukarou, Bouhali Keltoum, Khaled Zennir, Classical Solutions for the Generalized Kadomtsev-Petviashvili I Equations, *Arab Journal of Mathematical Sciences*, 29(1), (2023), 1-23. <https://www.emerald.com/insight/content/doi/10.1108/AJMS-08-2022-0195/full/html>
141. Ibrahim Lakehal, Benterki Djamilia and Khaled Zennir, Arbitrary decay for a nonlinear Euler-Bernoulli beam with neutral delay, *Theoretical and Applied Mechanics*, 49(3), (2023), 1-15. <http://www.mi.sanu.ac.rs/tam/apress.php>
140. Svetlin G. Georgiev, Khaled Zennir, Keltoum Bouhali, Rabab alharbi, Yousif Altayeb and Mohamed Biomy, Existence of Solutions for Impulsive Wave Equations, *AIMS Mathematics*, 8(4), (2023), 8731-8755. <https://www.aimspress.com/article/doi/10.3934/math.2023438>
139. Naimi Abdellouahab, Brahim Tellab, Khaled Zennir, Existence and Stability Results of the Solution for Nonlinear Fractional Differential Problem, *Boletim da Sociedade Paranaense de Matematica*, 41(1), (2023), 1–13. <https://periodicos.uem.br/ojs/index.php/BSocParanMat/issue/view/2042>
138. Keltoum Bouhali, Sulima Ahmed Zubair, Wiem Abdelmonem Salah Ben Khalifa, Najla ELzein AbuKaswi Osman and Khaled Zennir, A new strict decay rate for systems of longitudinal m-nonlinear viscoelastic wave equations, *AIMS Mathematics*, 2023, Volume 8, Issue 1: 962-976.. <https://www.aimspress.com/article/doi/10.3934/math.2023046>
137. Khaled Zennir, Abderrahmane Beniani, Bochra Belhadj and Loay Alkhalifa, Destruction of solutions for a class of wave  $p(x)$ -biLaplace equation with non-linear dissipation, *AIMS Mathematics*. 2022,8(1): 285-294. <https://www.aimspress.com/article/doi/10.3934/math.2023013>  
2022
136. Abderrahmane Beniani, Amine BENAÏSSA Cherif, Khaled Zennir and Fatima Zohra, Ladrani, Oscillation theorems for higher order nonlinear functional dynamic equations with unbounded neutral coefficients on time scales, *Novi Sad Journal of Mathematics*. <https://doi.org/10.30755/NSJOM.11387>, 2022. <https://sites.dmi.uns.ac.rs/nsjom/paper.html?noid=ns11387>

135. Svetlin G. Georgiev, Khaled Zennir, Wiem Abdelmonem Salah ben Khalifa, Amal Hassan Mohammed Yassin, Aymen Ghilen, Sulima Ahmed Mohammed Zubair and Najla Elzein Abukaswi Osman, Classical solutions for a BVP for a class impulsive fractional partial differential equations, *Fractals*, Vol. 30, No. 10 (2022) 2240264 (12 pages).  
<https://www.worldscientific.com/doi/10.1142/S0218348X22402642>
134. Svetlin G. Georgiev, Keltoum Bouhali and Khaled Zennir, A New Topological Approach to Target the Existence of Solutions for Nonlinear Fractional Impulsive Wave Equations, *Axioms* 2022, 11, 721.  
<https://www.mdpi.com/2075-1680/11/12/721>
133. Abdelhak Berkane, Svetlin Georgiev and Khaled Zennir, Novel positive solutions for a class of IBVP for nonlinear parabolic equations, *Dynamics of Continuous, Discrete and Impulsive Systems: Series A. Mathematical Analysis* 29 (2022) 403–417.  
<http://online.watsci.org/contents2022/v29n6a.html>
132. Djaghout Manal, Abderrazek Chaoui and Khaled Zennir, On Discretization of the Evolution p-Bi-Laplace Equation, *Numerical Analysis and Applications*. 2022.  
<https://link.springer.com/article/10.1134/S1995423922040036>
131. Amel Atmani, Aissa Boukarou, Benterki Djamilia and Khaled Zennir, Spatial analyticity of solutions to higher- order water wave models, *Mathematical Methods in the Applied Sciences*. 2022.  
<https://onlinelibrary.wiley.com/doi/10.1002/mma.8747>
130. Yazid Fares, Ouchenane Djamel and Khaled zennir, Global nonexistence of solutions to system of Klein-Gordon equations with degenerate damping and strong source terms in viscoelasticity, *Studia Mathematica*. 67(3):563–578, 2022.  
<https://www.cs.ubbcluj.ro/~studia-m/index.php/journal/article/view/754>
129. Jiwei Jia, Siyu Liu, Yawen Liu, Ruitong Shan, Khaled Zennir and Ran Zhang, Modeling and Reviewing Analysis of the COVID-19 Epidemic in Algeria with Diagnostic Shadow, *CSIAM Transaction on Applied Mathematics*, 2022, In Press, 1–8.  
[https://www.global-sci.com/intro/article\\_detail/csiam-am/21156.html](https://www.global-sci.com/intro/article_detail/csiam-am/21156.html)
128. Svetlin G Georgiev, Aissa Boukarou and Khaled Zennir, Classical solutions for 1-dimensional and 2-dimensional Boussinesq equations, *Turkish Journal of Mathematics*, 2022, 46(7):2977 – 2997.  
<https://journals.tubitak.gov.tr/math/vol46/iss7/27/>
127. Svetlin G Georgiev, Aissa Boukarou and Khaled Zennir, Classical solutions for the coupled system gKdV equations, *Russian Mathematics*, 2022, 66(12), 1–15.  
<https://link.springer.com/article/10.3103/s1066369x22120052>



126. Hongwei Zhang, Donghao Li, Shuo Liu, Khaled Zennir, Energy decay rate of solutions for a plate equation with nonlocal source and singular nonlocal damping terms, *International Journal of Nonlinear Analysis and Applications*, 2022, In Press, 1–8.  
[https://ijnaa.semnan.ac.ir/article\\_6722.html](https://ijnaa.semnan.ac.ir/article_6722.html)
125. Aouatef Elmansouri, Khaled Zennir, Aissa Boukarou and Okba Zehrour, Analytic Gevrey well-posedness and regularity for class of coupled periodic KdV systems of Majda-Biello type, *Applied Sciences*, Vol. 24, 2022, pp. 117-130.  
<http://www.mathem.pub.ro/apps/v24/A24.htm>
124. Hiba Abouatia , Amar Guesmia and Khaled Zennir, Strict decay rate for system of three nonlinear wave equations depending on the relaxation functions, *Journal of Applied Nonlinear Dynamics*, 11(2) (2022) 309–321, DOI:10.5890/JAND.2022.06.004.  
<https://www.lhscientificpublishing.com/Journals/articles/DOI-10.5890-JAND.2022.06.004.aspx>
123. Hassna Chebbah, Abdelaziz Mennouni and Khaled Zennir, Three Methods to Solve Two Classes of Integral Equations of the Second Kind, *Boletim da Sociedade Paranaense de Matematica*, 40(1), (2022), 1–9.  
<https://periodicos.uem.br/ojs/index.php/BSocParanMat/article/view/46315>
122. Manal Djaghout, Abderrazak Chaoui and Khaled Zennir, Full discretization to an hyperbolic equation with nonlocal coefficient, *Boletim da Sociedade Paranaense de Matematica*, 40(1), (2022), 1–14.  
<https://periodicos.uem.br/ojs/index.php/BSocParanMat/article/view/46032>
121. Djamel Ouchenane, Khaled zennir and Derradji Guidad, Well-posedness and a general decay for a nonlinear damped porous thermoelastic system with second sound and distributed delay terms, *Journal of Applied Nonlinear Dynamics*, 11(1), (2022), 153–170.  
<https://www.lhscientificpublishing.com/Journals/articles/DOI-10.5890-JAND.2022.03.009.aspx>
120. Naimi Abdellouahab, Brahim Tellab and Khaled Zennir, Existence and Stability results for the solution of Neutral fractional integro-differential equation with nonlocal conditions, *Tamkang Journal of Mathematics*, 53, 2022.  
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119. Svetlin Georgiev, Khaled Zennir, Multiple Solutions of a Class IBVPs for One-Dimensional Nonlinear Wave Equations, *International Journal of Nonlinear Analysis and Applications*, 2022.  
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118. Bouchra Azzaoui, Brahim Tellab, Khaled Zennir, Positive solutions for a fractional configuration of the Riemann-Liouville semilinear differential equation, *Mathematical Methods and applied Sciences*, 2022.  
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117. Fatima Zohra Ladrani, Abderrahmane Beniani, Khaled Zennir and Amine BENAÏSSA Cherif, Density Problem some of the Functional Spaces for Studying Dynamic Equations on Time Scales, *Journal of Siberian Federal University- Mathematics and Physics*, 2022, 15(1), 46–55.  
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116. Abdellouahab naimi, Brahim Tellab and khaled zennir, Existence and Stability results of a nonlinear fractional integro-differential equation with integral boundary conditions, *Kragujevac Journal of Mathematics*, Vol. 46, No. 5, 2022, pp. 685-699.  
[https://imi.pmf.kg.ac.rs/kjm/pdf/accepted-finished/c3371cf79f11b2d8b4fa56091875f072\\_2536\\_04212020\\_091908/kjm\\_46\\_5-2.pdf](https://imi.pmf.kg.ac.rs/kjm/pdf/accepted-finished/c3371cf79f11b2d8b4fa56091875f072_2536_04212020_091908/kjm_46_5-2.pdf)  
 2021
115. Fatma Ekinçi, Erhan Pişkin and Khaled Zennir, Existence, blow up and growth of solutions for a coupled quasilinear viscoelastic Petrovsky equations with degenerate damping terms, *Journal of Information and Optimization Sciences*, , DOI: 10.1080/02522667.2021.1972619, 2021.  
<https://www.tandfonline.com/doi/citedby/10.1080/02522667.2021.1972619?scroll=top&needAccess=true>
114. Svetlin Georgiev, Karima Mebarki and Khaled Zennir, Classical solutions for a class of nonlinear wave equations, *Theoretical and Applied Mechanics*, 48(2) (2021), 257-272.  
<http://www.mi.sanu.ac.rs/tam/apress.php>
113. Abderrahmane Beniani, Nouredine Bahri and Khaled Zennir, Existence and general decay estimates for a Petrovsky-Petrovsky coupled system with nonlinear strong damping, *Journal of Applied Nonlinear Dynamics*, 10(4) (2021) 645–657.  
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112. Nabil Houma, Khaled Zennir, Abderrahmane Beniani and Abdelhak Djebabela, New stability estimates of solutions to strong damped wave equation with logarithmic external forces, *Discontinuity, Nonlinearity, and Complexity*, 10(4) (2021) 625–634.  
<https://www.lhscientificpublishing.com/journals/articles/DOI-10.5890-DNC.2021.12.004.aspx>
111. Derradji Guidad, Khaled Zennir, Berkane Abdelhak and Berbiche Mohamed, The effect of damping terms on decay rate for system of three nonlinear wave equations with weak-memories, *Discontinuity, Nonlinearity, and Complexity*, 10(4) (2021) 635–647.  
<https://www.lhscientificpublishing.com/journals/articles/DOI-10.5890-DNC.2021.12.005.aspx>

110. Fatma Ekinci, Erhan Piskin and Khaled Zennir, Existence, blow up and growth of solutions for a coupled quasi-linear viscoelastic Petrovsky equations with degenerate damping terms, *Journal of Information & Optimization Sciences*, 2021.  
[DOI:10.1080/02522667.2021.1972619](https://doi.org/10.1080/02522667.2021.1972619)
109. Abdelkader Braik, Abderrahmane Beniani and Khaled Zennir, Well-posedness and stability for a Moore-Gibson-Thompson equation with internal distributed delay, *Discontinuity, Nonlinearity, and Complexity*, 10(4) (2021) 693–703.  
<https://www.lhscientificpublishing.com/Journals/articles/DOI-10.5890-DNC.2021.12.009.aspx>
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14. Khaled zennir, Existence and blow-up of solution for nonlinear viscoelastic wave equation with delay term, *J. Adv. Res. Appl. Math.*, Vol. 7, Issue. 4, 2015, pp. 45-61.
13. Khaled zennir, Mohamed Karek and Hocine Sissaoui, General decay of solution to weak-viscoelastic wave equation with strong damping in Fourier spaces, *Global Journal of Pure and Applied Mathematics*, Vo 11, N 5 (2015), pp. 3027-3038.  
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12. Khaled Zennir and Guesmia Amar, Existence of solutions to nonlinear kappa-th-order coupled klein-gordon equations with nonlinear sources and memory terme, *Applied Mathematics E-Notes*, 15, (2015), 121-136.  
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11. Khaled zennir, General decay of solutions for damped wave equation of Kirchhoff type with density in  $R^n$ , *Ann Univ Ferrara* (2015) 61:381-394.  
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10. Khaled zennir, General decay of solution of wave equation with density and memory term in  $R^n$ , *J. Adv. Resear. Dynam. Control Syst*, Vol. 7, Issue 2, (2015), pp. 54-65.  
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4. khaled zennir, Global nonexistence of solutions to system of nonlinear viscoelastic wave equations with degenerate damping and source terms, Ukrainian Mathematical Journal, Vol. 65, No. 7, (2013) 723-739.  
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3. khaled zennir, Exponential Growth of Solutions with  $L^p$ -norm of a Nonlinear Viscoelastic Hyperbolic Equation, Journal of Nonlinear Sciences and Applications 6 (2013), 252-262.  
<http://dx.doi.org/10.22436/jnsa.006.04.03>
2. Abbes Benaissa, Ouchenane Djamel and Khaled Zennir, Blow up of positive initial-energy solutions to systems of nonlinear wave equations with degenerate damping and source terms, Nonlinear studies. (J. I) Vol.19, No.4, (2012) pp 523-535.  
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1. Khaled zennir, Decay of Solutions of a Nonlinear Viscoelastic Hyperbolic Equation, An - Najah University Journal Research. (N. Sc.) Vol. 26, (2012), 19-42.  
<https://journals.najah.edu/article/95/>

### Accepted Papers

2. Guidad Derradji, Djamel Ouchenane, Khaled Zennir, Abdelbaki Choucha, Blow up of coupled nonlinear viscoelastic wave equation with distributed delay and strong damping, Dynamics of Continuous, Discrete and Impulsive Systems: Series A. 2020.
1. Abdelbaki Choucha, Djamel Ouchenane and Khaled Zennir, General decay for a thermoelastic damped Bresse system with second sound and distributed delay term, Dynamics of Continuous, Discrete and Impulsive Systems: Series A. 2020.

### Revised Papers

1. Hanni Dridi and Khaled Zennir, Generalized thermo-visco-elasticity flexible structures: Global existence and new scenario for energy decay, Siberian E. M. R

### Submitted Papers

7. Abdellouahab Naimi, Brahim Tellab and Khaled Zennir, Existence and generalized Ulam-Hyers-Rassias stability results of solution for nonlinear fractional differential problem with boundary conditions, Transactions of the London Mathematical Society- 11/2020
6. Manal Djaghout, Abderrazak Chaoui and Khaled zennir, Rothe- $H^1$ -Galerkin mixed finite element approximation for nonlocal evolution equation, Annali dell' Università di Ferrara- 12/2020
5. Abdelbaki Choucha, Djamel Ouchenane and Khaled Zennir, Exponential stability of a Timoshenko system in thermoelasticity of second sound with a memory and distributed delay term, J. I. E. A. 05/2020
4. Abderrazak Chaoui and Khaled Zennir, Galerkin- Mixed finite element method and a priori error estimates to class of  $p(x)$ -bi-Laplace equations, J. M. A.A. 06/2020
3. Abdellouahab Naimi, Brahim Tellab and Khaled Zennir, Existence and generalized Ulam-Hyers-Rassias stability results of solution for nonlinear fractional differential problem with boundary conditions on unbounded interval, MMAS. 11/2020
2. Naima Louhibi, Farida Cheheb and Khaled Zennir, Stability of wave equation under a fractional dynamic control of diffusive type, ZAMM. 10/2020
1. Hanni Dridi and Khaled Zennir, Blow up of solutions of a Kirchhoff-type equation with variable-exponent nonlinearities, Mathematical Notes (E Mail). 04/2020

### Projects

3. Title: New mathematical models for GPS Satellite. Goal: Geosynchronous orbits are occupied a few navigation satellites also (For example: Indian Regional Navigation Satellite System). Geo satellites can cover one third of the earth surface, so three satellites are sufficient to cover the entire earth. For navigation applications such as GPS, MEO is the wise option. Even though the LEO is closest to the earth, satellites in this orbit revolve at a very high speed. Due to this, receivers on earth fail to carry out the navigation calculations accurately. Moreover, LEO needs a lot more satellites to cover the entire earth thus, GPS satellites use . This project is concerned with a development of new mathematical model and try to find a different mathematical properties for these models.
2. Title: Time-PDEs in analytic function spaces. Goal: This project is concerned with well-posedness in analytic Gevrey - Bourgain type spaces
1. Title: Time-PDEs with memory of type II. Goal: It is about open questions within the context of longtime behavior of solutions.

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## Thesis

- May 2015. Title: ” *Qualitative study of some evolution problems of hyperbolic type*”, Habilitation thesis, Frere Mentouri University, Constantine, Algeria. I made a public defense in front of a scientific jury proposed by the scientific committee of the mathematics department of the University of Constantine by presenting a summary of my work since my doctorate in 2013 as well as the explanation of the research subjects proposed for doctoral students as co-supervisor and scientific seminars by intervening both nationally and international.
- December 2013. Title: ” *Study of existence, nonexistence and asymptotic behavior of solutions of some nonlinear hyperbolic problems*”, Ph.D thesis, Djillali Liabes University, Sidi Bel Abbas, Algeria. In this thesis we considered some hyperbolic problems (equations and system of equations) with the presence of different mechanisms of dissipation, damping and for more general forms of nonlinearities addressed from a different angle, and under assumptions on initial data and boundary conditions, conditions on damping and source terms, we focused our study on the existence/nonexistence and asymptotic behavior of solutions where we obtained several results on the decay rate, growth and blow-up in time of solutions.
- Febrioury 2009. Title: ” *Existence and asymptotic behavior of solutions of nonlinear viscoelastic hyperbolic equation*”, Magister thesis, Badji Mokhtar University, annaba, Algeria. Our work, in this thesis, lies in the study, under some conditions on many parameters and the relaxation functional  $g$ , the existence and asymptotic behavior of solutions of a nonlinear viscoelastic hyperbolic problem. Our results contained and generalized some existing results in literature. To prove our results many theorems were introduced.

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## Authored Books

2024

- Submitted to Khaled zennir and Mohamed Biomy, Introduction to Partial Differential Equations, (In Arabic) Qassim University, Saudi Arabia, 2024  
Qassim University
- Submitted to Svetlin Georgeiv and Khaled zennir, Projector Analysis of Dynamic Equations on Time Scales. 2023.  
De Gruyter
- Submitted to Aissa Boukarou, Khaled zennir and Svetlin Georgeiv, Time-PDEs in analytic Gevrey spaces. 2022.  
World Scientific
- Submitted to Khaled Zennir, Svetlin G. Georgiev,  $p(x)$ -bi-Laplacian: Application on Time-PDEs in viscoelasticity. 2024.  
World Scientific
- May 2024 Svetlin Georgeiv and Khaled zennir, General Quantum Numerical Analysis. 2024. ISBN 9781003472131 <https://www.taylorfrancis.com/books/mono/10.1201/9781003472131/general-quantum-numerical-analysis-svetlin-georgiev-khaled-zennir>



## 2023

- November 2023 Mohamed Biomy, Khaled zennir and SALah Boulares, Introduction to Numerical Analysis, (In Arabic) Qassim University, Saudi Arabia, 2023
- October 2023 Svetlin Georgiev and Khaled zennir, Advances on Fractional Dynamic Inequalities on Time Scales, World Scientific, 2023, <https://www.worldscientific.com/worldscibooks/10.1142/13386#t=aboutBook>
- October 2023 Svetlin G. Georgiev and Zennir Khaled, Multiplicative Partial Differential Equations, CRC Press, LLC, Taylor and Francis publisher, 2023, <https://www.taylorfrancis.com/books/mono/10.1201/9781003440116/multiplicative-partial-differential-equations-svetlin-georgiev-khaled-zennir>
- May 2023 Karima Mebarki, Svetlin G. Georgiev, Smail Djebali and Zennir Khaled, Fixed Point Theorems with Applications, CRC Press, LLC, Taylor and Francis publisher, 2023 <https://www.taylorfrancis.com/books/mono/10.1201/9781003381969/fixed-point-theorems-applications-karima-mebarki-svetlin-georgiev-smail-djebali-zennir-khaled-context=ubx&refId=6b1b6c93-dba7-4ead-8f46-c500f9d5227f>
- June 2023 Svetlin G. Georgiev and Zennir Khaled, Multiplicative Differential Equations- Volume II, CRC Press, LLC, Taylor and Francis publisher, 2023, <https://www.taylorfrancis.com/books/mono/10.1201/9781003394549/multiplicative-differential-equations-svetlin-georgiev-khaled-zennir>
- January 2023 Svetlin G. Georgiev and Zennir Khaled, Multiplicative Differential Equations- Volume I, CRC Press, LLC, Taylor and Francis publisher, 2023, <https://www.taylorfrancis.com/books/mono/10.1201/9781003393344/multiplicative-differential-equations-svetlin-georgiev-khaled-zennir?context=ubx&refId=ff37a31d-1a83-40fc-a727-02801fd5c65a>

## 2022

- June 2022 Abderrahmane BENIANI, Amin Benaissa Cherif and Zennir Khaled, Théorie Spectrale (French Edition). 2022. <https://my.editions-ue.com/catalog/details//store/fr/book/978-3-639-60665-2/thC3A9orie-spectrale>
- June 2022 Svetlin G. Georgiev, Khaled zennir and Aissa Boukarou, Multiplicative Analytic Geometry, CRC Press, LLC, Taylor and Francis publisher, 2022. ISBN 9781003325284. <https://www.taylorfrancis.com/books/mono/10.1201/9781003325284/multiplicative-analytic-geometry-svetlin-georgiev-khaled-zennir-aissa-boukarou>
- June 2022 Svetlin G. Georgiev and Khaled Zennir, Multiplicative Differential Calculus, 2022. ISBN 9781003299080. <https://www.taylorfrancis.com/books/mono/10.1201/9781003299080/multiplicative-differential-calculus-svetlin-georgiev-khaled-zennir>

## 2021

- September 2021 Zennir Khaled and Svetlin Georgiev, Boundary Value Problems on Time Scales Volume II, CRC Press, LLC, Taylor and Francis publisher, 2021. ISBN 9781032008059.  
<https://www.routledge.com/Boundary-Value-Problems-on-Time-Scales-Volume-II-Georgiev-Zennir/p/book/9781032008059>
- September 2021 Zennir Khaled and Svetlin Georgiev, Boundary Value Problems on Time Scales Volume I, CRC Press, LLC, Taylor and Francis publisher, 2021. ISBN 9781032002910.  
<https://www.routledge.com/Boundary-Value-Problems-on-Time-Scales-Volume-I-Georgiev-Zennir/p/book/9781032002910>
- 2020
- February 2020 Zennir Khaled and Svetlin Georgiev, Multiple Fixed Point Theorems and Applications in the Theory of ODEs, FDEs and PDEs, CRC Press, LLC, Taylor and Francis publisher. 2020, ISBN: 9780367464325.  
<https://www.routledge.com/Multiple-Fixed-Point-Theorems-and-Applications-i-Georgiev-Zennir/p/book/9780367464325>
- 2019
- March 2019 Zennir Khaled, Svetlin Georgiev, Functional Analysis with Applications, De Gruyter Publishers. 2019, ISBN: 3110657724, 9783110657722.  
<https://www.degruyter.com/document/doi/10.1515/9783110657722/html>
- 2018
- September 2018 Zennir Khaled and Ali Rezaigui, Bases de la Topologie, ditions universitaires européennes, 2018, ISBN: 978-3-8417-3437-2
- September 2018 Zennir Khaled and Ali Rezaigui, Cours d'Analyse Complexe, Noor publishing, 2018, ISBN: 978-620-2-35443-1.
- January 2018 Zennir Khaled and Saleh Zitouni, Équations Aux Dérivées Partielles de nature physique, Editions universitaires européennes, 2018, ISBN: 978-620-2-27796-9.
- 2016
- October 2016 Zennir Khaled, Équations de la Physique Mathématiques, Cours et Exercices, Noor publishing, 2016, ISBN: 978-3-330-79850-2.
- November 2016 Zennir Khaled and Salah boulaaras, Méthodes d'Analyse Numérique, sciences de l'ingénieur, Partie I, Cours, Editions universitaires européennes, 2016, ISBN: 978-3-8416-1658-6.
- December 2016 Zennir Khaled and Salah boulaaras, Méthodes d'Analyse Numérique, Sciences de l'ingénieur, Partie II, TDs, Editions universitaires européennes, 2016, ISBN: 978-3-639-54064-2.

Guest Editor in Special Issue:

2. A special issue of Axioms (ISSN 2075-1680). Differential and Dynamic Equations on Time Scales and their Applications.  
[https://www.mdpi.com/journal/axioms/special\\_issues/Stochastic\\_Differential\\_Equation](https://www.mdpi.com/journal/axioms/special_issues/Stochastic_Differential_Equation)
1. A special issue of Axioms (ISSN 2075-1680). Recent Advances in Stochastic Differential Equations.  
[https://www.mdpi.com/journal/axioms/special\\_issues/1GW04M4CK0](https://www.mdpi.com/journal/axioms/special_issues/1GW04M4CK0)

## Editorial Board:

5. Innovative Journal of Mathematics.  
<https://www.sigmaxings.com/journals/index.php/IJM/about/editorialTeam>
4. Mediterranean Journal of Physics.  
<http://www.medjchem.com/index.php/medjphysics/pages/view/editorial-board>
3. Journal of Natural, Life and Applied Sciences.  
<https://journals.ajsrp.com/index.php/jnslas/about/editorialTeam>
2. Global Journal of Mathematics and Mathematical Sciences.  
[https://www.ripublication.com/editorial\\_board\\_of\\_gjmms.htm](https://www.ripublication.com/editorial_board_of_gjmms.htm)
1. Journal of Applied Mathematics and Statistical Applications.  
<https://www.alliedacademies.org/journal-applied-mathematics-statistical-applications/editors.php>

## Reviewer

8. Mathematical Reviews- AMS
7. Mathematical Methods in the Applied Sciences
6. Waves, Wavelets and Fractals, Advanced Analysis
5. WSEAS Transactions on Mathematics
4. The Arab Journal of Sciences and Research Publishing
3. Taiwanese Journal of Mathematics
2. International Journal of Maps in Mathematics
1. The international journal for computation and mathematics in electrical and electronic engineering
9. Filomat
10. Southeast Asian Bulletin of Mathematics

## Reviewer and jury member of the following thesis

LMD thesis University 20 Aout 1955, Skikda, Algeria. Title: "Theoretical and numerical study of stochastic Keller-Segel problem".  
2023, Slimani Ali

- PhD thesis 2021, Labadla Amel University 08 Mai 1945, Guelma, Algeria. Title: "Descritization of some evolution problems".
- PhD thesis 2017, BENIANI Abderrahmane University Djillali Liabes, Sidi Bel Abbes, Algeria. Title: "Existence globale et stabilisation de certains problemes d'évolution linéaires et non linéaires dans des domaines non bornés".
- PhD thesis 2017, LAID DJILLALI University Djillali Liabes, Sidi Bel Abbes, Algeria. Title: "Stabilisation du systeme de Timochenko viscoélastique en présence d'un terme de retard non-linéaire".

## PhD Students Completed

- PhD thesis, Defended, July 2023 Nabil Houma, University Badji Mokhtar, Annaba, Algeria. Title: " Etude qualitative sur quelques systemes couples de multi-physiques pour des equations aux derivees partielles de type hyperbolic".
- PhD thesis, Defended, Jun 2023 Abou ATIA Hiba, University 08 Mai 1945, Guelma, Algeria. Title: " Existence and stability for a system of nonlinear damped wave equations".
- LMD thesis, Defended, Jun 2022 Abdellouahab Naimi, University Kasdi Merbah- ouargla , Algeria. Title: " Sur l'existence et la stabilité de certains problèmes : EDPs / EDFs".
- PhD thesis, Defended, May 2022 GUIDAD Derradji, University Mohamed Khider Biskra, Algeria. Title: " Etude qualitative de quelques systèmes amortis pour les équations d'ondes".
- PhD thesis, Defended, October 2020 Kassah Laouar Lakhdar, University Constantine 1, Algeria. Title: " Existence and Asymptotic profiles for a problem of wave equation with stong damping".
- LMD thesis, Defended, Jun 2019 Mouhssin Bayoud, University Badji Mokhtar, Annaba, Algeria. Title: " Quali-tative studies of some dissipative systems for partial differential equations of evolution-type."
- PhD thesis, Defended, Jun 2018 Abdelkader Braik, University Oran 1, Algeria. Title: " On certain control problem for the delayed heat equations and stability".
- LMD thesis, Defended, Jun 2017 KAREK Mohamed, University Badji Mokhtar, Annaba, Algeria. Title: " Asymptotic profiles for some problems of wave equations in the Fourier spaces".
- PhD thesis, Defended, Sept 2017 Bouzettouta Lamine, University Badji Mokhtar, Annaba, Algeria. Title: " Existence and Asymptotic behavior for damped Bresse system".

PhD thesis, Zitouni Salah, University Badji Mokhtar, Annaba, Algeria. Title: " Study of existence/nonexistence and behavior of solutions for some evolution problems".  
Defended, Jun 2016

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## PhD Students Continued

First advisor of the PhD thesis Mansouri Aouatef, University El Arbi Ben Mhidi, Oum El Bouaghi, Algeria. Title: " Control and stability of certain evolution problems (PDEs)". since 2019

Second advisor of the PhD thesis Faycal Alili, University Kasdi Merbah, Ourgla, Algeria. Title: " On some discrete fractional problems". since 2022

Second advisor of the PhD thesis Ibrahim Lekehal, University Mohamed El Bachir El Ibrahimi, Boedj Bouariridj, Algeria. Title: " Etude qualitative de quelques EDPs en temps avec amortissement". since 2021

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## Master Students Supervised:

2013/2014 BOURRICHE HOUDA and BOULECHFAR SELMA, Department of Mathematics, University 20 Août 1955, SKIKDA, Algeria. Title : "On the existence and decay of solutions for some dissipative wave equations"

2014/2015 BOUSSOKTA SOMIA and KRIKA AHLAM, Department of Mathematics, University 20 Août 1955, SKIKDA, Algeria. Title : "On the degenerate wave equations- $p$ -Laplacian operator"

2014/2015 BEDJAOUI SARA and MESKINE ILHEM, Department of Mathematics, University 20 Août 1955, SKIKDA, Algeria. Title : " Existence and decay of solution for coupled system of viscoelastic wave equations"

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## Professional experience

I have been working as an assistant Professor since 2013.

### Teaching Philosophy and Goals

I believe that the best way of learning mathematics is doing mathematics as well as linking the lecture material to various concepts taken in earlier courses and to real world applications. I regularly urge my students to be actively involved in the learning process in which I view my role as a facilitator. I try my best to design the framework in which learning can take place, and then stimulate and nurture the students' development, giving help in terms of knowledge, techniques, and encouragement.

My goals in teaching are not just to promote learning of the subject matter. I also try to help the students learn to think logically, learn problem-solving methods and techniques, and improve writing and personal skills.

The Teaching and learning process can be extended beyond the classroom to include individual teacher-student interaction and readiness to assist students. In this regard, I always encourage my students to discuss their academic problems during my office hours. I make myself available at other hours as well. In order to increase communication with the students, I have used WebCT for all my courses to ease online communication with students. This allowed me to assist the students in various ways even after regular classes and office hours.

### Supervision- Licence thesis (B. Sc.) in mathematics of:

- June 2011 BELKHEIR Imane, Department of Mathematics, University of sciences and technology Mohammed BOUDIAF of Oran, USTO, Algeria. Title: " Fixed point theorems and its applications ".
- June 2012 BAYOUD Mouhssin, Department of Mathematics, University 20 Août 1955, SKIKDA, Algeria. Title: " The study of some evolution equations, wave equation".
- June 2012 MEKSSI Soumia, Department of Mathematics, University of sciences and technology Mohammed BOUDIAF of Oran, USTO, Algeria. Title: " The study of some evolution equations, heat equation"
- June 2013 KAOUANE AbdelAli, Department of Mathematics, University 20 Août 1955, SKIKDA, Algeria. Title : "Sobolev spaces and distribution"
- June 2013 BOULBIBANE Bisma, Department of Mathematics, University 20 Août 1955, SKIKDA, Algeria. Title : "Hilbert spaces"
- June 2014 Bouhali Amina, Department of Mathematics, University 20 Août 1955, SKIKDA, Algeria. Title : "Existence of solution for semilinear wave equation"
- June 2014 Khanchoul Amina, Department of Mathematics, University 20 Août 1955, SKIKDA, Algeria. Title : "Compacity methode"
- June 2014 Taleb Amina, Department of Mathematics, University 20 Août 1955, SKIKDA, Algeria. Title : "On the heat equation"

### Teaching Experience:

#### 1. Qassim University, KSA.

Since September 2015 Department of mathematics, Faculty of sciences and Arts, Ar Rass, - Vector calculus MATH.204. - Differential and Integral Calculus MATH.203. - Complex analysis MATH.484. - Differential equations for mathematic's students MATH.313 - Differential equations for physic's students MATH.210 - Differential equations for computer's students MATH.207 - Partial differential equations MATH.422 - Linear Algebra MATH.331 - Matlab MATH 251.

#### 2. University 20 Août 1955, Skikda, Algeria

September 2012-August 2015 - Numerical Analysis for L2 Sciences -Optimisation for M2 Sciences -Maths 01 and 02 for L1 sciences - Mathematical physics equations for L3 mathematics -Introduction in distributions for L3 mathematics

#### 3. University of sciences and technology Mohammed Boudiaf of Oran, Algeria

March 2009- - Numerical Analysis for L2 Mathematics- L2 Chirical- Probability and statis-  
September tics for L2 Chirical sciences  
2012

#### 4. Preparatory School of Science and Technology of Oran, Algeria

Septembre Preparatory School of Science and Technology of Oran, Algeria- Numerical  
2010-Jun Analysis for L2 - Algebra 01,02 and Analysis 01,02 for L1  
2011

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### Administration

- 2017/2021 Administrative council member, department of mathematics, faculty of sciences and arts, Qassim University, Saudi Arabia.
- 2012/2015 Administrative council member, department of mathematics, faculty of sciences, university 20 Août 1955 of Skikda, Algeria
- 2013-2015 Deputy head of department of mathematics, faculty of sciences, university 20 Août 1955 of Skikda, Algeria
- 2014-2015 Member of Equal Committee Members of masterful teachers of the 20 Août 1955 University, Algeria.

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### Collaborators

- Dr. Aissa Boukarou University of Science and Technology Houari Boumediene, Algeria
- Dr. Djamel Ouchenane Mathematics departement, Laghouat University Amar Telidji, Algeria
- Pr. Brahim Tellab Mathematics departement, Kasdi Merbah University, Algeria
- Pr. Ali Allahem Department of Mathematics, College of Science, Qassim University, Saudi Arabia
- Pr. Baowei Feng Department of Mathematics, Southwestern University of Finance and Economics, China
- Dr. Sultan S Alodhaibi Department of Mathematics, Qassim University, Saudi Arabia
- Dr. Bahri Cherif Department of Mathematics, Sefax University, Tunisia
- Pr. Salem Alkhalaf Department of Mathematics, Qassim University, Saudi Arabia
- Dr. karek mohamed Department of Mathematics, Université Kasdi Merbah Ouargla, Algeria
- Dr. Fatma Yesim Ekinici Gıda Muhendisligi, Turkey
- Pr. Djebabla Abdelhak University Badji Mokhtar Annaba, Algeria

- Pr. Mama Abdelli University Mustapha Stambouli, Mascara, Algeria
- Pr. Guefaïfa Rafik University Larbi Tebessi - Tebessa, Algeria
- Pr. Salah Boulaaras Department of Mathematics, Qassim University, Saudi Arabia
- Pr. Abdelaziz Mennouni Department of Mathematics, University of Batna 2, Algeria
- Dr. Abderrahmane Beniani Department of Mathematics, University of Ain Temouchent, Algeria
- Pr. Mohammad Shahrouzi Department of Mathematics, Jahrom University, Iran
- Pr. Jorge Ferreira Department of Mathematics, Universidade Federal Fluminense, Brazil
- Pr. Erhan Pişkin Department of Mathematics, Dicle University, Turkey
- Pr. Smail Djebali Department of Mathematics, Imam Muhammad bin Saud Islamic University, Saudi Arabia
- Pr. Benterki Djamila Department of Mathematics, Mohamed El Bachir El Ibrahimi University, Algeria
- Pr. Hongwei Zhang Henan University of Technology, Henan, China
- Pr. Siyu Liu Jilin University, China
- Pr. Toufic El Arwadi Beirut Arab University, Lebanon
- Pr. Tosiya Miyasita Yamato University, Japan
- Pr. Perikles Papadopoulos University of West Attica, Greece
- Pr. Daniel Oliveira da Silva Department of Mathematics, Nazarbayev University, Nur-Sultan, Kazakhstan

## References professors

- Pr. Svetlin G. Georgiev Sorbonne University, France.



Pr. Laboratory of numerical analysis, optimization and statistics, University Badji  
SISSAOUI Mokhtar, Annaba, Algeria. (My first supervisor of magister's thesis)  
Hocine

Pr. Laboratory of analysis and control of partial differential equations, University  
BENAISSA Djillali liabes, Sidi Bel Abbes, Algeria. (My supervisor of PhD thesis)  
ABBES

Pr. SAID- University of Sharjah, UAE. (My second supervisor of magister's thesis)  
HOUARI  
Belkacem

Pr. University 20 Août 1955, Skikda, Algeria. (My supervisor of graduate studies)  
GUESMIA  
Amar

## Short Stays and Visit

2011/2012 Invited for one month to laboratory of Analysis, Topology and Probability,  
UMR 6632, centre of Mathematics and informatics at university of Aix-Marseille,  
French. By: Pr. Jerome LOS.

2013/2014 Invited for one month to laboratory of mathematics, informatiques and ap-  
plications, University Haute-Alsace, Mulhouse, French. By: Pr. Bernard  
Brigui.

## Training session

28-29/3/2023 Designing and building smart phone Educational applications.  
(6 hours)

28-29/9/2021 Ceating and using educational 3D motion graphics using 3D studio max.  
(6 hours)

27/9/2021 (4 Managing electronic courses via Blackboard LMS.  
hours)

11/12/2019 International classification of refereed scientific journals.  
(3 hours)

16- Learning outcomes.

17/10/2017  
(10 hours)

21- Blackboard learning management system.

22/10/2015  
(8 hours)

23-27/8/2015 New faculty mentoring program.  
(8 hours)

## Personal Skills

1. Comprehensive problem solving abilities, Excellent verbal and written communication skills.

2. Good people skills, willingness to learn, team facilitator and a hard worker.
3. Programming language: Turbo Pascal, Matlab, FreeFem, Scilab, Lapack.
4. Office automation: MS Office XP, Word, PowerPoint, Excel, SWP and La TeX.
5. Founder and member of the Association of the Young Algerian Researchers in Technologies, information and Communication (AJCATIC).

## — Languages knowledge

Arabic Native,  
Frensh Fluent,  
English Very Good

Place: Qassim- Kingdom of Saudi Arabia

I hereby declare that all the information mentioned above is true to the best of my knowledge.