FACULTY FULL NAME: Kamel Saoudi

POSITION: Associate Professor

Personal Data

Nationality | French

Date of Birth | 02/09/1980

Department | Mathematics

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Language Proficiency

Language	Read	Write	Speak
Arabic	x	x	x
English	x	x	x
French	x	x	x

Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
2009	PhD	University Of Toulouse	French
2005	Master	University Of Toulouse	French
2004	Fellowship	University Of Perpignan	French
2000	Bachelor	School of Cebella	Tunisia

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)

PhD	Study of some elliptic quasilinear and singular Problems
Master	Multiplicity of positive solutions for quasilinear problem with p-laplacian operator

Fellowship	The function of Moreau Yosida

Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work	Date
Associate professor	University of Dammam	2018/2022
Assistant professor	University of Dammam	2013/2018
Assistant professor	University of Sousse	2012/2013
Assistant	University of Gabes	2010/2012
Assistant	University of Toulouse	2008/2010
Lecturer	University of Toulouse	2005/2008

Administrative Positions Held: (Beginning with the most recent)

Administrative Position	Office	Date

Scientific Achievements

Published Refereed Scientific Researches
(In Chronological Order Beginning with the Most Recent)

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
1	D Choudhuri, DD Repovš, K Saoudi	A Double Phase Problem with a Nonlinear Boundary Condition	Bulletin of the Malaysian Mathematical Sciences Society
2	D Choudhuri, M Kratou, K Saoudi	A MULTIPLICITY RESULTS TO A p-q LAPLACIAN SYSTEM WITH A CONCAVE AND SINGULAR NONLINEARITIES.	Fixed Point Theory
3	A Ghanmi, L Mbarki, K Saoud	Infinitely many solutions for a class of Kirchhoff problems involving the-Laplacian operator	Mathematical Notes

4	D Choudhuri, K Saoudi	A critical elliptic problem involving exponential and singular nonlinearities	Fractional Calculus and Applied Analysis
5	A Daoues, A Hammami, K Saoudi	Multiplicity results of nonlocal singular PDEs with critical Sobolev-Hardy exponent	Electronic Journal of Differential Equations
6	DD Repovš, K Saoudi	The Nehari manifold approach for singular equations involving the p(x)-Laplace operator	Complex Variables and Elliptic Equations
7	A Ghanmi, NT Chung, K Saoudi	On some singular problems involving the fractional $p(x,.)$ -Laplace operator	Applicable Analysis
8	D Choudhuri, DD Repovš, K Saoudi	On elliptic problems with Choquard term and singular nonlinearity	Asymptotic Analysis
9	A Ghanmi, M Kratou, K Saoudi, DD Repovš	Nonlocal p-Kirchhoff equations with singular and critical nonlinearity terms	Asymptotic Analysis
10	K Saoudi, D Choudhuri, M Kratou	Multiplicity of Solutions to a pq Fractional Laplacian System with Concave Singular nonlinearities	Journal of Mathematical Physics, Analysis, Geometry
11	A Mokhtari, K Saoudi, J Zuo	Critical $p(x)$-Kirchhoff Problems Involving Variable Singular Exponent	Bulletin of the Iranian Mathematical Society
12	Hsini, Saoudi, Seddik	A multiplicity results for a singular quasilinear elliptic equation	IJM 2021
13	Kefi, Saoudi, AL-Shomrani	A kirchhoff p(x)-biharmonic problem involving singular nonlinearities and navier boundary conditions	Zeitschrift fur Analysis und ihre Anwendung, 2021
14	Repovs, Saoudi	The Nehari manifold approach for singular equations involving the p(x)□Laplace operator	CVEE, 2021
15	Taarabti, El Allali, Haddouch, Saoudi	Multiple solutions for a neumann problem type	Mathematical Reports, 2021

		with inde_nite weight in sobolev spaces with variable exponents	
16	Chung, Ghanmi, Saoudi	On some singular problems involving the fractional p(x; :)-Laplace operator	Applicable Analysis, 2021
17	Mokhtari, Saoudi, Chung	fractional p(x; :)-Laplacian problem involving a singular term	IJPAM, 2021
18	Kratou, Saoudi, Alshehri	Multiple solutions of a nonlocal system with singular nonlinearities	IJM, 2021
19	Panda, Choudhuri, Saoudi	A singular elliptic problem involving fractional p - Laplacian and a discontinuous critical nonlinearity	JMP, 2021
20	Panda, Choudhuri, Saoudi	A critical fractional choquard problem involving a singular nonlinearity and a radon measure	Journal of Pseudo-Di_erential Operators and Applications, 2021
21	Kefi, Repovs, Saoudi	On weak solutions for fourth-order problems involving the Leray-Lions type operators	MMAS, 2021
22	Saoudi, Ghanmi, Horrigue	Multiplicity of solutions for elliptic equations involving fractional operator and sign-changing nonlinearity	Journal of Pseudo-Di_erential Operators and Applications, 2020

23	Daoues, Hammami, Saoudi	Existence and Multiplicity of Solutions for a Nonlocal Problem with Critical Sobolev-Hardy Nonlinearities	MJOM, 2020
24	Saoudi, Kratou, Al Zahrani	Uniqueness and existence of solutions for a singular system with nonlocal operator via perturbation method	Journal of Applied Analysis and Computation, 2020
25	Daoues, Hammami, Saoudi	Multiple positive solutions for a nonlocal PDE with critical Sobolev-Hardy and singular nonlinearities via perturbation method	FCAA, 2020
26	Soni, Datta, Saoudi, Choudhuri	Existence of solution for a system involving a singular-nonlocal operator, a singularity and a Radon measure	CVEE, 2020
27	Alotaibi, Saoudi	Regularity and multiplicity of solutions for a nonlocal problem with critical Sobolev-Hardy nonlinearities	Journal of the Korean Mathematical Society,, 2020
28	Kefi, Saoudi	On a Kirchho_ Singular p(x)-Biharmonic Problem with Navier Boundary Conditions	Acta Applicandae Mathematicae, 2020
29	Saoudi, Kratou, Al Zahrani	Multiplicity Results for the Biharmonic Equation with Singular Nonlinearity of Super Exponential Growth in R4	Mathematical Notes, 2019
30	Saoudi	_W1;N Versus C1 local minimizer for a singular functional with Neumann boundary	Boletim da Sociedade Paranaense de Matematica, 2019

		condition	
31	Kefi, Saoudi	On the existence of a weak solution for some singular p(x)-biharmonic equation with Navier boundary conditions	Advances in Nonlinear Analysis, 2019
32	Ghosh, Saoudi, Kratou, Choudhuri	Least energy sign-changing solution to a fractional p-Laplacian problem involving singularities	DPDE, 2019
33	Saoudi, Ghosh, Choudhuri	Multiplicity and H• older regularity of solutions for a nonlocal elliptic PDE involving singularity	JMP, 2019
34	Saoudi	A fractional Kirchho_ system with singular nonlinearities	Analysis and Mathematical Physics, 2019
35	Saoudi	A singular System Involving the Fractional p-Laplacian Operator via the Nehari Manifold Approach	Complex Analysis and Operator Theory, 2019
36	Saoudi, Agarwal, Kumam, Ghanmi, Thounthong	The Nehari manifold for a boundary value problem involving RiemannLiouville fractional derivative	ADE, 2018
37	Ghanmi, Saoudi, Kratou	A multiplicity results for a singular problem involving a riemann-liouville fractional derivative	Filomat, 2018
38	Saoudi	The _bering map approach to a p(x)-laplacian equation with singular nonlinearities and nonlinear neumann boundary conditions	Rocky Mountain Journal of Mathematics, 2018

39	Al-Zahrani, Mourou, Saoudi	Existence of solutions for a class of strongly coupled p(x)-laplacian system	Boletim da Sociedade Paranaense de Matematica, 2018
40	Saoudi	Multiplicity results for a class of singular elliptic equation involving sublinear Neumann boundary condition in R2	Journal of Fixed Point Theory and Applications, 2017
41	Saoudi	Existence and non-existence of solutions for a singular problem with variable potentials	EJDE, 2017
42	Saoudi, Agarwal, Mursaleen	A multiplicity result for a singular problem with subcritical nonlinearities	Journal of Nonlinear Functional Analysis, 2017
43	Ghanmi, Saoudi	A multiplicity results for a singular equation involving the p(x)-laplace operator	CVEE, 2017
44	Saoudi	Existence and multiplicity of solutions for a quasilinear equation involving the p(x)-laplace operator	CVEE, 2017
45	Saoudi	A critical fractional elliptic equation with singular nonlinearities	FCAA, 2017
46	Saoudi	On vs. local minimizers for a critical functional related to fractional p-Laplacian	Applicable Analysis, 2017
47	Kamel Saoudi and Abdeljabbar Ghanmi	A multiplicity results for a singular equation involving the $p(x)-$Laplace operator	Complex Var. Elliptic Equ, 2016
48	Kamel Saoudi and Mouna Kratou and Sarah Al-Sadhan	Multiplicity results for the $p(x)-$Laplacian equation with singular and nonlinearitiesNeumann nonlinearboundary condition	International Journal of Differential Equations, 2016

49	Kamel Saoudi	Existence and non-existence of solution for nonlineara singular problem Dirichletinvolving the $p(x)-$Laplace operator	J. Adv. Math. Stud. Vol. 9, (2016), No. 2, 292-303.
50	Kamel Saoudi and Abdeljabbar Ghanmi	A multiplicity results for a singular problem involving the fractional operator Laplacian$-$p	Complex variables and elliptic equations, 61, 9 (2016) 1199--1216.
51	Kamel Saoudi and Abdeljabbar Ghanmi	The manifold Nehari for a singular elliptic equation involving the fractional Laplace operator	Fractional Differential Calculus, 2016
52	Kamel Saoudi	$W_0^{1,p(x)}$ versus C^1 local minimizers for a functional with critical growth	JOURNAL OF PARTIAL DIFFERENTIAL EQUATIONS Vol. 27, No. 2, pp. 1-10
53	Kamel Saoudi	Existence and non-existence of positive solutions for quasilinear elliptic problems	Journal of Abstract and Applied Analysis "(Volume 2012 (2012)
54	Kamel Saoudi and Jacques Giacomoni	Multiplicity results for elliptic equations with singular nonlinearity of super exponential growth in R2	Advances in Differential Equations (March/April) 2012 Volume 17 Numbers 3-4
55	Kamel Saoudi and Jacques Giacomoni	$W^{1,p}_0$ versus C^1 local minimizers for a singular and critical functional	J. Math. Anal. Appl., 363, (2010), no. 2, 697-710.
56	Kamel Saoudi and Jacques Giacomoni	Multiplicity of positive solutions for a singular and critical problem	Nonlinear Analysis : Theory, Methods and Applications, 71 (9), pp. 4060- 4077. (2009)
57	Hsini, Saoudi, Seddik	A multiplicity results for a singular quasilinear elliptic equation	IJM 2021
58	Ke_, Saoudi, AL-Shomrani	A kirchhoff p(x)-biharmonic problem involving singular nonlinearities and navier	Zeitschrift fur Analysis und ihre Anwendung, 2021

		boundary conditions	
59	Repovs, Saoudi	The Nehari manifold approach for singular equations involving the p(x)□Laplace operator	CVEE, 2021

Refereed Scientific Research Papers Accepted for Publication

#	Name of Investigator(s)	Research Title	Journal	Acceptance Date

Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

#	Name of Investigator(s)	Research Title	Conference and Publication Date

Completed Research Projects

#	Name of Investigator(s) (Supported by)	Research Title	Report Date
1	Kamel Saoudi and Mouna Kratou	Existence of multiple solutions for a singular and quasilinear equation	2014
2	Kamel Saoudi and Mouna Kratou	A multiplicity results for a singular problem involving the Laplacian$-$pfractional operator	2015

Current Researches

#	Research Title	Name of Investigator(s)

Contribution to Scientific Conferences and Symposia

#	Conference Title	Place and Date of the Conference	Extent of Contribution
1	The 18 th Tunisian Mathematical	Mahdia (Tunisia) 19-22 march 2012	Presence

	society symposium, SMT- CSMT		
2	The 17 th Tunisian Mathematical society symposium, SMT- CSMT	Sousse (Tunisia) 15-19 march 2010	Presence
3	The first Tunisian-Franco Conference of Mathematics	Djerba- Tunisia 19-20 march 2009	Give a Talk
4	10 th conferences of applied mathematics and statistics	Jaca (Spain) 15-17 september 2008	Presence
5	The 16 th Tunisian Mathematical society symposium, SMT- CSMT	Sousse (Tunisia) 17-21 march 2008	Give a talk
6	The nonlinear physics school	Peyresq (Nice-France) 5-11 september 2007	Presented my thesis
7	The First Franco-Spainol conferences of mathematics	Saragosse (Spain) 9-13 july 2007	Presence
8	The 15 th Tunisian Mathematical society symposium, SMT- CSMT	Sousse (Tunisia) 19-23 march 2007	Presented my thesis
9	Computational techniques for fractional models.	King Fahd university of petroleum & minerals (Arabia Saudia). 2018	
10	Partial di_erential equations & applications.	King Fahd university of petroleum & minerals (Arabia Saudia). 2018	

Membership of Scientific and Professional Societies and Organizations

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Teaching Activities

Undergraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Linear Algebra	233N	
2	Set Theory	172N	
3	Calculus 2	211N	

4	Calculus 3	212N	
5	Calculus 1	152N	
6	Partial Differential Equations	412N	
7	Principle Analysis	242N	
8	Math Physics 1	210N	
9	O.D.E.	Math 310	
10	Applied Mathematics		
11	Functional Analysis	Math 484	
12	Numerical Analysis	Math 305	

Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)

On successful completion of this course students will be able to: 1. Solve linear system of equations by Gauss elimination method 2. Find basis and dimension 3. Find the rank of matrix 4. Find determinant of matrix 5. Find the inverse of matrix 6. Apply Gram- Schmidt process on linear independent set 7. Change of basis 8. Find the eigen-values of matrix
Upon successful completion of this course students will be able to: □ Know the basic concepts of sets. □ Know the notions of Union, Intersection, Difference Complements and Power Sets. □ Know the definition of subsets of Cartesian product of sets and relations. □ Determine the different types of relations. □ Know the definition of functions. □ Discuss the different types of functions (One-one function ,Onto function , Correspondence). □ Understand infinite sets. □ Determine countable sets and cardinal number.
On successful completion of this course students will be able to: □ Use the integral by parts to solve the integration □ Solve the trigonometric integration □ Use the trigonometric substitutions to solve kind of integration □ Use partial fractions to evaluate integration of rational functions □ Use the Integral tables algebra systems to solve the integration □ Evaluate the Improper integrals □ Determine infinite sequences and series □ Test the converge and diverge of series □ Use Integral test □ Use Comparison test □ Use The Ratio and Root test □ Use Alternating series, and Absolute test and know Conditional convergence □ Find Power series and its convergence

□ Find Taylor and Maclaurin series its convergence □ Use Binomial series and applications of Taylor series □ Find Parametric equations and Polar coordinates
Study of main concepts of Calculus 3 as follows: 1. How to draw the curve of the function in the 3-D Coordinate System 1. Studying the Partial Derivatives and Higher Order Partial Derivatives 2. properties of functions and how to draw the curve of the function 4. Finding the tangent of the curve and the maximum and minimum values of the function. 5. Studying the Double Integrals and triple integrals.
1. Study of main concepts of Calculus as follows: 1.Finding limit of the function and studying its Continuous. 2. Studying the properties of functions and how to draw the curve of the function 3. Studying the relationship between Differentiation and Continuity. 4. Finding the tangent of the curve and the maximum and minimum values of the function. 5. Have the knowledge of how the function increased and decreased.
Introduction of partial differential equation. First order partial differential equation and its solution. Lagrange method. Characteristics method. partial differential equation of constant coefficient Cauchy problem. Classification of linear second order PDEs: Elliptic equation – Hyperbolic equation- Parabolic equation . It's solution by Characteristics method – d'Alembert's formula. Separation of variables in Cartesian coordinates
successful completion of this course students will be able to: □ Understand the properties of real numbers, especially the completeness and ordering property. □ Learn the concept of the open group partial set of real numbers and their properties. □ Testing convergence sequences and series. □ Understand the limit of the real functions. □ Learn how to read mathematical text and understand the logical steps
successful completion of this course students will be able to: □ Classify ordinary differential equations. □ Solve ordinary differential equations of first and second order. □ Deduce solutions of partial differential equations using separable of variables. □ Solve Wave equation in two and three variables.
1) Fourier transform (Properties of Fourier Transform, Parseval's identity, convolution theorem), 2) Laplace transform (The Definition Laplace Transforms Inverse Laplace Transforms 3) Special Functions (gamma function, beta function) 4) Complex analysis (Complex Numbers, Complex Functions, Elementary Functions) 5) Partial Differential Equations (Laplace equation, Heat equation. Wave equation)

Postgraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Applied Analysis		
2	Advanced Functional Analysis		

Brief Description of Postgraduate Courses Taught: (Course Title – Code: Description)

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2	

Course Coordination

#	Course Title and Code	Coordination	Co-coordination	Undergrad.	Postgrad.	From	To
1	Numerical Analysis	x		x			
2	PDE	x		x			
3	Differential equations	x		x			
4	ODE	x		x			

Guest/Invited Lectures for Undergraduate Students

#	Activity/Course Title and Code	Subject	College and University or Program	Date

Student Academic Supervision and Mentoring

#	Level	Number of Students	From	To

Supervision of Master and/or PhD Thesis

#	Degree Type	Title	Institution	Date
1	Master	Multiplicite de solutions positives pour des problemes quasilineaires faisant intervenir p-laplacien fractionnaire	IAU	2018
2	PHD	Etude de Quelques probl_emes nonlocales singuliers	University of Sousse	2022

Ongoing Research Supervision

#	Degree Type	Title	Institution	Date

Administrative Responsibilities, Committee and Community Service **(Beginning with the most recent)**

Administrative Responsibilities

#	From	To	Position	Organization

Committee Membership

#	From	To	Position	Organization
1	1/1/2016	31/05/2016	member	Deanship of University Educational Development
2	1/10/2016	30/10/2016	member	committee for preparation the questions for Demonstrator

Scientific Consultations

#	From	To	Institute	Full-time or Part-time

Volunteer Work

#	From	To	Type of Volunteer	Organization

Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

1	(X)html, Latex, Beamer
2	powerpoint, excel, Linux

Last Update

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