

Dr. REHOUMA Abdelhamid



**Address** (office): Department of Mathematics, Faculty of Exact Sciences

Hama Lakhdar University, El-Oued, Po Box 789 Eloued 39000 Algeria.

Address (home): Po Box 116 PTT Bayada Eloued 39150 Algeria

**Mobile:** : 00213 6 97 60 90 73

**Mail address:** rehoumaths@gmail.com

## CURRICULUM VITAE

### Personal Data

First Name : Rehouma

Last Name : Abdelhamid

Birthday : September 26 1966.

Place of birth: Bayada ( Eloued ) Algeria

Nationality: Algerian

Address ( home ): Po Box 116 Bayada. Eloued 39150 Algeria

Address ( office ) : Department of mathematics, Faculty of exact sciences, University of Hama Lakhdar, Eloued. Po Box 789 Eloued ,Algeria. 39000

Mail address: [rehoumaths@gmail.com](mailto:rehoumaths@gmail.com)

URL-address :

<https://sites.google.com/view/mathсреhoumablog/accueil>

### COURSE OF STUDY

Elementary school , Primary school of Bayada <9;97-9;9;

Intermediary school , CEM of Ibn Badiss Bayada < 9;9; – 9;:7

Secondary school , Lyceum of Bouchoucha of Eloued : 9;:7 – 9;:8 . Baccalaureate in Mathematics .

Higher Studies Diploma,University of Badji Mokhtar Annaba, Algeria

Duration of study : 9;:8-9;:1. D.E.S,Bachelor in Mathematics .

Title : Differential Geometry.

Place of Higher Studies.study : University of Badji Mokhtar , Annaba,Algeria.

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Magister Studies Diploma,University of Badji Mokhtar Annaba, Algeria

Title of Magister Dissertation:

Asymptotic behavior of orthogonal polynomials on contour.

Magister. Supervisor: Professor Benzine Rachid.

Duration of Magister.study: September 1992-February 1996.

Place of Magister.study : University of Badji Mokhtar , Annaba,Algeria.

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Doctorate.Studies Diploma,University of Badji Mokhtar Annaba, Algeria

Title of Doctorat Dissertation:

Polar polynomials associated with orthogonal polynomials.

Doctorat. Supervisors: Professor Benzine Rachid.& Professor Mme Laskri Yamina.

Place of Doctorate.studies : University of Badji Mokhtar , Annaba,Algeria.

Duration of Doctorate .studies: September 2006-November 2014.

## List of Publications:

### Published Papers

1. A. Rehouma and M. J. Atia, Study of an example of Markov chains involving Chebyshev polynomials. Integral transforms and special functions. Received 22 January 2022. Accepted 1 July 2022.  
<https://doi.org/10.1080/10652469.2022.2098286>.
2. Abdelhamid Rehouma On the Fourier coefficients of the derivative with respect to celebrated orthogonal systems, Hilbert Journal of Mathematical Analysis ,Volume 2 Number 1 (2023) .Pages 034–045. <https://hilbertjma.org>
3. R.S Costas-Santos, and A.Rehouma, Localization of zeros of polar polynomials on the unit disk, Rocky Mountain Journal of Mathematics . **Volume 54 (2024), No. 4, 995–1004.**
4. Yamina Laskri & Abdelhamid Rehouma,Polar Bergman polynomials over domains with corners , IJOPCM,Vol. 4, no. 4 ,December 2011,pp 74-87.
5. Abdelhamid Rehouma & Yamina Laskri & Rachid Benzine,Asymptotic properties of polar polynomials,Applied Mathematical Sciences, Vol.8 ,no.14,2014, pp.685-691.

6. **Laid Maiza and Tedjani Hadj Ammar and Abdelhamid Rehouma, A** Dynamic Contact Problem Between Elasto-Viscoplastic Piezoelectric Bodies with Adhesion. Journal of Informatics and Mathematical Sciences Vol. 12, No. 1, pp. 15–39, 2020  
ISSN 0975-574.
7. Abdelhamid REHOUMA, Asymptotic of polar orthogonal polynomials on the unit circle and their reversed polynomials. Algerian Journal of Engineering Architecture and Urbanism Vol. 5 Nr. 2, 2021.
8. Abdelhamid Rehouma & Tedjani Hadj Ammar and Abdelaziz Azeb Ahmed, Asymptotic of second order polar polynomials, Global Journal of Pure and Applied Mathematics. ISSN 0973-1768 Volume 16, Number 5 (2020), pp. 675-685
9. Abdelhamid Rehouma, Asymptotic of polar orthogonal polynomials on the unit circle and their reversed polynomials, Algerian Journal of Engineering Architecture and Urbanism (AJEAU), Vol. 5 Nr. 2 2021, pp 308-318  
ISSN: 2588-1760

## Preprints

10. Abdelhamid Rehouma, Asymptotic properties of polar  $L_p$  extremal polynomials on contour. (to appear)
9. Local of zeros of derivative linear combination of orthogonal polynomials on the unit circle. (to appear)

## Activities

Personal Web Site

<https://sites.google.com/view/mathсреhoumablog/accueil>

Researchgate

<https://www.researchgate.net/profile/Rehouma-Abdel-Hamid>

Orcid

<https://orcid.org/0000-0002-4668-0924>

livedna

<https://livedna.net/account/ids.php?>

## Research Interest

- .Associated orthogonal polynomials
- . Transforms orthogonal polynomials and moments problems
- .Polar orthogonal polynomials.
- .Analytic Theory of Polynomials.
- .Extremal problems in the weighted Smirnov spaces w-r-t to the arc-length measure.
- .Extremal problems in the weighted Bergman spaces w-r-t to the area measure.
- .Extremal length, Extremal area, equilibrium measures.
- .Classical orthogonal polynomials.Three terms recurrence relation.(TTRR).
- . Polar derivatives of polynomials in complex variables.
- .Holomorphic property on polydisc.
- .Statistical convergence.Densities and Summability.
- . Algorithmes for family of associated Chebychev polynomials.
- . Local of zeros of polar orthogonal polynomials
- .Complex polynomials in 2 variables

## Employment

### Scientifics Works and Participations in Colloques

1. COLLOQUE NATIONAL D'ANALYSE FONCTIONNELLE ET APPLICATIONS, organisé par Centre universitaire de Ouargla le 07 et 18 Avril 2001, avec une communication orale intitulée:

*Sur les propriétés des produits de Blaschke*

2. WORKSHOP ON SPECIAL FUNCTIONS AND APPLICATIONS, Saud king University held in Riyadh Saudi Arabia February 20-21, 2013

*Asymptotic off polar orthogonal polynomials on contour*

3. The 12th Symposium of the FRACTIONAL CALCULUS AND APPLICATIONS GROUP INTERNATIONAL CONFERENCE IN MATHEMATICAL SCIENCE (ONLINE) February 17- 19, 2021/ Mathematics Department Alexandria University – Egypt

*On using Tchebychev polynomials types*

4. SÉMINAIRE INTERNATIONAL SUR LES MATHÉMATIQUES ET L'INFORMATIQUE en ligne (webinaire), organisé par Algerian Journal of Engineering, Architecture and Urbanism, le 05 et 06 Février 2021, avec une communication orale intitulée:

*Polynômes polaires associés aux polynômes orthogonaux sur le cercle unité*

5. International Conference on Nonlinear Science and Complexity (ICNSC, 2023) held on July 10-15, 2023, Biruni University, Istanbul-Turkey.

I am participated as "Face to Face Speaker" and presented the following paper entitled:

**Two Orthogonal polynomials linears combinations of Chebyshev polynomials of different kinds**

### Scientifics Works as Reviewer

1. Reviewer in international Journal :

*Mathematics and Statistics ( ISSN : 3232-2144 )*

*Horizon Research , Publishing Corporation, USA.*

2. Reviewer in international Journal :

*Algerian Journal of Engineering, Architecture and Urbanism*

*<https://www.aneau.org/ajeau/>*

*ISSN : 2588-1760*

## Teaching , Experience,Supervision

**0...99113**-Scientist at the Mathematical Institute of University of Tebessa.Algeria.

Undergraduate	Licence	Fourth year maths	Linear Differential Equations
		Second year maths	Applied Mathematics

**911399108**-Scientist at the Mathematical Institute of University of Hama Lakhdar of Eloued. Algeria.

Undergraduate	Licence LMD	Second year maths	Complex Analysis
		Third year Licence maths	Linear Continuous Operators

**9119- 91999**-Scientist at the Mathematical Institute of University of Hama Lakhdar of Eloued. Algeria.

Undergraduate	Licence LMD and Master	Second year Matser maths	<b>Complex Analysis</b>
		Third year Licence maths	<b>Linear Continuous Operators</b>
		Second year licence chemistry	<b>Applied Mathematics</b>

### Supervision of Students master

#### 1.Opérateurs linéaires continus .Fondements et applications

Par : Mastour Khaled et Hamyti Abdelhalim

Année universitaire 2017 – 2018

#### 2.Opérateurs linéaires sur les espaces de Hilbert

Par : Gamoula Abdallah

Année universitaire 2018 – 2019

**3. Opérateurs linéaires sur les espaces de Banach**

Par : Torki Abdelfatah et Torki Abdelbasset

Année universitaire 2019 – 2020

**4. Opérateurs linéaires sur les espaces de Hilbert**

Par : Salhi Amira et **Lomri Iman**

Année universitaire 2021 – 2022

**5. Sur les formules de Cauchy et de Green et de Stokes et quelques problèmes qui s'y rattachent**

Par : Hamayti Khaoula et Kahf Hanan

Année universitaire 2022 – 2023

**6. Comportement asymptotique des polynômes orthogonaux sur cercle unité et leurs polynômes polaires associés**

Par : Hada Chourouk et Abadi Anfal

Année universitaire 2023 – 2024