

# CURRICULUM VITAE

## Nadia Lekrine

### 1. General informations Name:

Nadia Lekrine.

Date and place of birth : 01/03/1971, Zighoud Youcef, Constantine, Algeria.

Current Position: Doctor

Specialization: Analysis and Partial Differential Equations Faculty :

Science exactes et science de la nature et de la vie.

Department : Mathematics

Address: University of Oum El Bouaghi, Algeria.

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### 2. Education and Diplomas

1-Doctorate in Sciences, University of Constantine (Algeria), May 2016. Major Area: Partial Differential Equations,

Thesis title: On The Cauchy Problem for Non-cutoff Homogeneous Kac's Equation.

Mention: Very honourable.

2-Academic training at Rouen University (18 month: 2008-2009): Directed by the Professor Chao-Jiang-Xu (Rouen university).

3-Licence In English, University of Oum El Bouaghi, Algeria June 2011. 4-Magist'ere in applied mathematical analysis, University of Constantine (Algeria), May 2002.

Major Area: Partial Differential Equations,

Thesis title: Etude de certains problèmes mixtes avec conditions aux limites non locales.

Mention: Very honorable.

5-Diploma of superior studies in mathematics, option analysis, University of Constantine (Algeria), 1995.

6-Baccalaur'eat: in technical mathematics (secondary school, Algeria), 1991. Mention : Quite good.

### 3. Professional Experience

2017-2023 Senior Lecturer

Department of mathematics. University Oum EL-Bouaghi. (Algeria).

-Responsible of the module " General Mathematics".

-Responsible of the module "Probability and statistics".

-Responsible of the module " Introduction to linear operators theory".

-Responsible of the module " Numerical methods".

2009-2016 Senior Lecturer

Department of mathematics. University Oum EL-Bouaghi. (Algeria).

-Responsible of the module "Probability and statistics".

-Responsible of the module " General Mathematics".

2002-2008 Senior Lecturer

Department of mathematics. University Oum EL-Bouaghi. (Algeria). -Responsible of the module "Series, complex analysis and Differentials equations , Fourier analysis".

-Responsible of the module "Topology".

-Responsible of the module "General Mathematics".

-Responsible of the module "General and linear algebra".

2001-2002 Junior Lecturer

Department of economy, University of Constantine (Algeria).

-Responsible of the module "Mathematics for the economy".

-2000-2001 secondaire teacher, Zighoud youcef, Constantine (Algeria).

-Directed Works of the module "General Mathematics"

1995-1996 Junior Lecturer

Department of Technology, University of Constantine (Algeria).

#### **4 Fields of research**

- Kinetic equations: Boltzmann and Kac's equations.

- Non local Problems.

#### **5. Knowledge of languages**

Arab: Mother tongue.

French: Quite well knowledge

English: Quite well knowledge

#### **6. References**

Chao-Jiang-Xu, LMRS, university of Rouen (France).

A. Bouziani University of Oum. El-Bouaghi (Algeria).

S. Mesloub University of King Saud (Saudi Arabia).

#### **7. Communications in meetings and seminars**

1- 8ème école equations Différentielles abstraites, 17-21 mai 2015, université de Béjaia, Algérie.

2-Premier Workshop sur les Equations aux Dérivées partielles, 26-29 mai 2013, université de Sétif, Algérie.

3-Colloque international sur les systèmes dynamiques Distribués et Contrôle, 08-10 Novembre 2009.

4-Siminaire Internationale de Mathématiques appliquées et simulations, 22-25 avril Oum El Bouaghi, 2007, Algérie.

5-5ème rencontre Internationale d'Analyse mathématique et ses Applications (RAMA 5) 10-12 Avril 2006, à l'université de M'sila, Algérie.

6-Ecole Symposium, inclusion différentielles et théorie du contrôle population, 25-30 mars 2006, université de Sidi Bel Abbes, Algérie.

7-Ecole Symposium, Perturbation singulière en théorie de contrôle et en dynamique de population 21-25 janvier 2006, université de Tlemcen, Algérie.

8- Les Journées de Mathématiques Algéro-française, Constantine 26-28 novembre 2005.

#### **8. Publications**

8.1. Research publications.

1-With Chao-Jiang-Xu, Gevrey Regularizing effect of the Cauchy problem for non-cut-off homogeneous Kac's equation, KRM, 2 N 4, December, 2009, 647-666. 2-With S.Mesloub, On a nonlocal hyperbolic mixed problem , Acta Sci.Math.(Szeged), 70 ( 2004),65-75. 3-With S.Mesloub, On a nonlocal singular mixed evolution problem, Math Society of Serbia-Fr Yugoslavia, 53, (2001), pp 79-89.

#### 8.2. Papers in refereed proceedings.

4. Existence, Global stability and full regularizing effect of the strong solution of the Cauchy problem for non-cut-off homogeneous Kac's equation, Math analysis and Appl.

5. Weighted Sobolev regularizing effect of the Cauchy problem for non-cut-off homogeneous Kac's equation, Advances in D.E.and Control Process.

#### 8.2. Papers Submitted.

6.About the moment's production of the Cauchy problem for non-cut-off homogeneous Kac's equation.

7.Ultra-analytical regularizing effect of the Cauchy problem for non-cut-off homogeneous Kac's equation.

#### 8.3. Papers in preparation.

8.Existence, Global stability and full Sobolev regularizing effect of the strong solution of the Cauchy problem for non-cut-off nonhomogeneous Boltzmann equation,

9.Existence, Global stability and full Sobolev regularizing effect of the strong solution of the Cauchy problem for non-cut-off homogeneous Boltzmann equation,

10.Ultra-analytical and shilov regularizing effect of the Cauchy problem for noncut-off homogeneous Boltzmann equation.

11.Ultra-analytical and shilov regularizing effect of the Cauchy problem for noncut-off nonhomogeneous Boltzmann equation.

12.Existence, Global stability and full Sobolev regularizing effect of the strong solution of the Cauchy problem for non-cut-off nonhomogeneous Kac's equation,

13.Ultra-analytical and shilov regularizing effect of the Cauchy problem for noncut-off nonhomogeneous Kac's equation.