Curriculum Vitae

by M'hamed ED-DAHBI

January 23, 2025

Contents

1 Personal information

First name: M'HAMED

Last name: ED-DAHBI

Born in Ouaklim (Tinghir, Morocco), March 13, 1967

Nationality: Moroccan

Marital Status: Married

Actual position: Full Professor at King Saud University, College of Sciences, Mathematics Department, Riyadh, Kingdom of Saudi Arabia.

E-mail: meddahbi@ksu.edu.sa, Web page: https://faculty.ksu.edu.sa/en/meddahbi

2 Education

2.1 University degrees

1. 1994-1998: Doctorate (PhD) (Large Deviations for Diffusion and for Solutions to Stochastic Partial Differential Equations) *under the supervision of Professor Youssef Ouknine* at Cadi Ayyad University, Faculty of Sciences Semlalia Marrakech, Morocco, **April 27, 1998**.
2. 1992-1994: (Diploma of Higher Education) (DES) (Functions of Semimartingales and Dirichlet Processes) *under the supervision of Professor Youssef Ouknine* at Cadi Ayyad University, Faculty of Sciences Semlalia Marrakech, Morocco, **May 27, 1994**.
3. 1991-1992: (C.E.A.) Master of Mathematics (Differential equations and Stochastic Differential Equations). Subject of the thesis: (Principal values of the Brownian motion). Cadi Ayyad University Faculty of Sciences Semlalia, Marrakech, Morocco, **June 1992**.
4. 1987-1991: (Bachelor) of Mathematics (Fundamental Mathematics). Cadi Ayyad University Faculty of Sciences Semlalia, Marrakech, Morocco, **May 1991**.

3 Professional Experience

3.1 Employment History

1. February 29, 2016 - Present: **Full Professor**, King Saud University, Riyadh, Saudi Arabia.
2. Sepetmber 01, 2003 - February 28, 2016: **Full Professor**, Cadi Ayyad University, Marrakech, Morocco.
3. March 01, 2002 - August 31, 2003. **Eighteen months Postdoctoral position: Researcher** at the Centre de Recerca Matemàtica, Universitat Autònoma de Barcelona, Institut d'Estudis Catalans, Barcelona, Spain.
4. January 01, 2001 - February 28, 2002: **Associate Professor** at the Department of Mathematics and Computer Sciences, Faculty of Sciences and Techniques, Cadi Ayyad University, Marrakech, Morocco.
5. February 03, 2000 - December 31, 2000: **Eleven months Postdoctoral position: Researcher** at the Centre de Recerca Matemàtica, Universitat Autònoma de Barcelona, Institut d'Estudis Catalans, Barcelona, Spain.
6. February 01, 1999 - February 2, 2000: **Associate Professor** at the Department of Mathematics and Computer Sciences, Faculty of Sciences and Techniques, Cadi Ayyad University, Marrakech, Morocco.
7. September 01, 1998 - January 31, 1999: **Five months Postdoctoral position: Researcher** at the Department of Mathematics, Division of Statistics, Royal Institute of Technology KTH, Stockholm Sweden.
8. October 25, 1995 - August 31, 1998: **Assistant professor** at the Department of Mathematics and Computer Sciences, Faculty of Sciences and Techniques, Cadi Ayyad University, Marrakech, Morocco.
9. October 26, 1994 - October 24, 1995: **Assistant** at the Department of Mathematics and Computer Sciences, Faculty of Sciences and Techniques, Cadi Ayyad University, Marrakech, Morocco.
10. September 13, 1993 - October 25, 1994: **Lecturer** at the Department of Mathematics and Computer Sciences, Faculty of Sciences and Techniques, Cadi Ayyad University, Marrakech, Morocco.

4 Research Interests and Grants

4.1 Research Interests

Stochastic analysis including

Actuarial and Financial Mathematics

Backward Stochastic Differential Equations

Stochastic Partial Differential Equations

Large Deviations, Limit theorems and Applications

4.2 Supervised Ph.D. thesis (5)

1. Supervisor of Ms. Maryam Siddiqui, King Saud University, College of Sciences, Mathematics Department, Riyadh, (thesis defended on June 6, **2024**) under the subject: Numerical Solutions of Singular Stochastic Differential Equations with Jumps.

2. Supervisor of Mr. Sidi Mohamed Lalaoui Ben Cherif, Cadi Ayyad University, Marrakech (thesis defended on June 4, **2016**) under the subject: Pricing financial instruments and sensitivity analysis in the time-inhomogeneous models.

3. Supervisor of Mr. Lahcen Boulanba, Cadi Ayyad University, Marrakech (thesis defended on July 14, **2010**) under the subject: On the fractional stochastic partial differential equations.

4. Supervisor of Mr. Yassine El Qalli, Cadi Ayyad University, Marrakech (thesis defended on November 10, **2009**) under the subject: Interest rates and forward contracts implied by risk neutral and real world pricing-Bayesian estimation.

5. Supervisor of Mr. Mohamed Ait Ouahra, Cadi Ayyad University, Marrakech (thesis defended on July 7, **2003**) under the subject: Limits theorems and large deviations for some stochastic processes: Théorèmes limites et grandes déviations pour certains processus stochastiques.

4.3 Research Grants (11)

1. Principal Investigator of the research project IFKSUOR3-310 (2023 & 2024).

2. Principal Investigator of the research project RSPD2023R1075 and RSPD2024R1075.

3. Member of the Financial and Actuarial Studies Research Chair (https://fasrc.ksu.edu.sa/en).

4. Principal Investigator of the research group RG-1441-339 at KSU.

5. Member of the research group RG-1441-328 at KSU

6. Member of the DAAD project with the University of Freiburg, Germany : (Hochschuldialog mit der islamischen Welt) 2014

7. Member of the DAAD project with the University of Freiburg, Germany: (Hochschuldialog mit der islamischen Welt) 2013

8. Principal Investigator of the Morocco-Tunisian research program (AI project N12 MT17) 2012-2014

9. Member of the Marie Curie Initial Training Network (ITN) (2008-2012) Call: FP7-PEOPLE-2007-1-1-ITN, no. 213841-2 Deterministic and Stochastic Controlled Systems and Applications for the Marrakech Team.

10. Member of the project Mathematics and their Applications (Stochastic Finance) at the Hassan II Academy of Sciences and Technologies (2008-2012) (http://www.academie.hassan2.sciences.ma/)

11. Member of many project with France (PHC Volubilis) CNR-CNRS MA/10/224, MA/01/02, MA/06/142. (http://www.campusfrance.org/fr/volubilis)

5 Consulting Experience

5.1 Administrative duties (16)

1. Since September **2022** Member of the Financial and Actuarial Studies Research Chair (https://fasrc.ksu.edu.sa/en)
2. Since September **2021** Member of the steering committee of the Academic Accreditation at the Mathematics Department, CoS, KSU.
3. Since January **2020** Elected member of the Saudi Association for Mathematical Science
4. Since September **2020** Coordinator of the Academic Accreditation committee of the Actuarial and Financial Mathematics Bachelor program, CoS, KSU.
5. Since September **2018** Member of the Applied Mathematics Committee, CoS, KSU.
6. Since September **2018** Academic advisor in Bachelor program of Actuarial and Financial Mathematics, CoS, KSU.
7. Since March **2016** Member of the in Actuarial and Financial Mathematics Committee, CoS, KSU.
8. Since March **2016** Member of the in Actuarial and Financial Mathematics Training Committee, CoS, KSU.
9. January **2015** - February **2016 Director** of the laboratory Stochastic Methods Applied to Finance and Actuarial Sciences. (http://www.fstg-marrakech.ac.ma/Lamsafa/LaMSAFA.html)
10. **Elected** member of the International Statistical Institute (**ISI**) **2013** (http://www.isi-web.org)
11. January **2011** - December **2014 Director** of the laboratory Stochastic Methods Applied to Finance and Actuarial Sciences. (http://www.fstg-marrakech.ac.ma/Lamsafa/LaMSAFA.html)
12. December **2012 -** to June **2014** Participation to the development of the curricula modules of the master program on Modeling Stochastic Phenomenon: Probability and Statistics (Faculty of Sciences Semlalia, Cadi Ayyad University)
13. April **2012 -** to June **2013** Participation to the development of the **new** curricula modules in Mathematical Finance and Actuarial Sciences, (Faculty of Sciences and Techniques, Cadi Ayyad University)
14. April **2006 -** to June **2008** Participation to the development of curricula modules in Mathematical Finance and Actuarial Sciences, (Faculty of Sciences and Techniques, Cadi Ayyad University).
15. April **2008 -** to September **2013 Coordinator** of the program: Mathematical Finance and Actuarial Sciences (http://www.fstg-marrakech.ac.ma/IAFCS/).
16. **January 2006 - December 2010** Responsible of the team: Mathematical Analysis and Finance.

5.2 Reviewer of Bachelor and Master programs (6)

1. Reviewer of Bachelor program in Actuarial Sciences and Financial Mathematics at King Faisal University (KFU) Alhsa, KSA **April-May 2023**.
2. Reviewer of Master program in Actuarial Science at Umm Al-Qura University (UQU), KSA **March-April 2023**.
3. Reviewer of Bachelor program in Financial Mathematics and Actuarial Sciences at Umm Al-Qura University (UQU), KSA **April-May 2022**.
4. Reviewer of Bachelor program in Actuarial Science at the Prince Sultan University (PSU), Riyadh, KSA **February 2022**.
5. Reviewer of Bachelor program in Actuarial and Financial Mathematics at Prince Sattam bin Abdulaziz University (PSAU), Al-Kharj, KSA during the **academic year 2018-2019**.
6. Participant to the revision of the curriculum of Actuarial and Financial Mathematics Program during the **academic year 2017-2018** at the Mathematics Department, CoS, KSU.

5.3 Reviewer of PhD thesis or Habilitation (21)

1. Evaluator of the Habilitation thesis of Madam Siham Bouhadou: A contribution to the non linear optimal stopping problem and RBSDE in the general setting, Cadi Ayyad University, Faculty of Sciences, Semlalia Marrakech (June 02, **2022**).
2. Evaluator of the PhD thesis of Mr. Mohamed El Jamali, Université Ibn Zohr, Faculté des Sciences, Morocco entitled: Marchés financiers dirigés par un processus de Lévy et les équations différentielles stochastiques rétrogrades. (thesis defended on July 12, **2021**).
3. Evaluator of the PhD thesis of Mr. Brahim Baadi, Université Ibn Tofail, Faculté des Sciences Kénitra, Morocco entitled: EDSRs Réfléchies aux trajectoires irrégulières dans une filtration générale et applications. (thesis defended on February 25, **2019**).
4. Evaluator of the PhD thesis of Madam Soumia Dani: Conditional full support and Modeling of financial markets in continuous time, Tahar Moulay University, Saida, Algeria (thesis defended on November 13, **2016**).
5. Evaluator of the PhD thesis of Mr. Mahamat Mahamat Zene: Contributions à l'étude d'équations intégro-différentielles stochastiques à retard infini et fini, Université Gaston Berger Saint-Louis, Sénégal. June **2016**.
6. Evaluator of the PhD thesis of Mr. Sadibou Aidara: Contributions à l'étude des équations différentielles stochastiques rétrogrades fractionnaires généralisées et des équations différentielles doublement stochastiques rétrogrades anticipées, Université Gaston Berger Saint-Louis, Sénégal. June **2016**.
7. Evaluator of the PhD thesis of Mr. Tarik El Mellali: Contributions aux équations aux dérivées partielles stochastiques: Convergence en loi et grandes déviations, University Cadi Ayyad, Faculty of Sciences Semlalia, Marrakech (thesis defended on October 29, **2015**).
8. Evaluator of the PhD thesis of Mr. Aissa Sghir: Limit theorems and stability in law of some additives functionals of a class of self similar processes, University Mohamed first, Faculty of Sciences, Oujda (thesis defended on April 23, **2014**).
9. Evaluator of the PhD thesis of Mr. Antoine Hakassou: Processus infiniment divisible par rapport au temps et équations différentielles stochastiques à croissance logarithmique, Cadi Ayyad University, Faculté des Sciences Semlalia Marrakech (thesis defended on July 8, **2013**).
10. Evaluator of the PhD thesis of Mr. Ibrahima Faye: Contributions aux équations différentielles stochastiques rétrogrades et aux équations différentielles doublement stochastiques rétrogrades dirigées par un processus de Lévy, Université Gaston Berger Saint-Louis, Sénégal (thesis defended on June 21, **2013**).
11. Evaluator of the Habilitation thesis of Mr. Mohammed Hassani: Contribution à l'étude des équations différentielles stochastiques rétrogrades avec ou sans réflexion, Cadi Ayyad University, Faculté des Sciences Semlalia Marrakech (Thèse soutenue le 14 Septembre **2012**).
12. Evaluator of the thesis (Doctorat National) of Mr. Khalid Tahri: Représentation et Convergences des Martingales Multivoques et Applications, Université Mohamed Ben Abdellah, Fès (thèse soutenue 30 Novembre **2011**).
13. Evaluator of the thesis (Doctorat National) of Mr. Salah Hajji: Contribution to the study of Stochastic functional differential equations and stochastic partial differential equations, Cadi Ayyad University, Marrakech (thèse soutenue 6 Avril **2010**).
14. Evaluator of the thesis (Doctorat National) of Mr. Jean Marc Owo: Equations différentielles stochastiques rétrogrades et applications, Université de Cocody, Abidjan Côte d'Ivoire, rapportée le 8 Juillet 2009 (Thèse soutenue le 14 Janvier **2010**).
15. Evaluator of the thesis (Doctorat National) of Mr. Rachid Belfadli, Some contributions to the study of Stochastic differential equations, symmetric stable processes and bifractional Brownian motion Cadi Ayyad University, Marrakech (thèse soutenue 24 Juin **2009**).
16. Evaluator of the thesis (Doctorat National) of Mr. Mohamed El Otmani: Approximation et simulation Monte Carlo des Equations différentielles stochastiques rétrogrades et application à la finance, Cadi Ayyad University, Marrakech (thèse soutenue 18 Octobre **2007**).
17. Evaluator of the thesis (Doctorat National) of Madam Khadija Akdim: Equations différentielles stochastiques rétrogrades, inégalités variationnelles et leurs applications en finance et contrôle stochastique, Cadi Ayyad University, Marrakech (thèse soutenue 20 avril **2007**).

18. Evaluator of the thesis (Doctorat National) of Mr. El Hassan Lakhel: Approximation du mouvement Brownien fractionnaire et régularité des trajectoires du processus intégral de Skorohod dans les espaces de Besov, Cadi Ayyad University, Marrakech (thèse soutenue 11 juillet **2002**).

19. Evaluator of the thesis (Doctorat National) of Mr. Abdelghani Ben-Tahar: Contribution à l'étude de la stabilité et l'approximation brownienne des réseaux de files d'attente, Université Hassan II Ain Choq, Casablanca (thèse soutenue **2001**).

20. Evaluator of the thesis (Doctorat d'Etat) of Mr. Abdelkhalek Elarni: Intégration stochastique multivoque et inclusions différentielles stochastiques ordinaires et rétrogrades, Cadi Ayyad University, Marrakech (thèse soutenue **2001**).

21. Evaluator of the thesis (Doctorat National) of Mr. Abdekarem Berkaoui: Approximation des solutions des EDS et régularité du processus intégrale de Skorohod dans les espaces de Besov-Orlicz, Cadi Ayyad University, Marrakech (thesis defended on **1999**).

5.4 Participation to Habilitation or PhD thesis committees (34)

1. Member of the Thesis Committee of Mr. Mohamed El Jamali, Université Ibn Zohr, Faculté des Sciences, Morocco entitled: Marchés financiers dirigés par un processus de Lévy et les équations différentielles stochastiques rétrogrades. (thesis defended on July 12, **2021**).

2. Member of the Thesis Committee of Mr. Brahim Baadi, Université Ibn Tofail, Faculté des Sciences Kénitra, Morocco the title of the thesis: EDSRs Réfléchies aux trajectoires irrégulières dans une filtration générale et applications. (thesis defended on February 25, **2019**).

3. Member of the Thesis Committee of Ms. Bajja Salwa, Cadi Ayyad University, Marrakech, Morocco under the subject: Parametric estimation of fractional stochastic differential equations via the Malliavin calculus [fr. Estimation paramétrique des équations différentielles stochastiques fractionnaires via le calcul de Malliavin]. (thesis defended on July 5, **2018**).

4. Member of the Thesis Committee of Madam Soumia Dani, Tahar Moulay University, Saida, Algeria under the subject: Conditional full support and Modeling of financial markets in continuous time. (thesis defended on November 13, **2016**)

5. President of the Thesis Committee of Mr. Aazizi Soufiane, Cadi Ayyad University, Marrakech under the subject: Sur les EDS rétrogrades les les théorèmes limites via le calcul de Malliavin. (thesis defended on June 24, **2016**).

6. Member of the Thesis Committee of Mr. Sidi Mohamed Lalaoui Ben Cherif, Cadi Ayyad University, Marrakech under the subject: Pricing financial instruments and sensitivity analysis in the time-inhomogeneous models. (thesis defended on June 4, **2016**).

7. Member of the Thesis Committee of Mr. Tarik El Mellali: Contributions aux équations aux dérivées partielles stochastiques: Convergence en loi et grandes déviations, Cadi Ayyad University, Faculté des Sciences Semlalia, Marrakech (thesis defended on October 29, **2015**).

8. Member of the Thesis Committee (Thèse d'Etat) of Mr. Mohsine Benabdallah: Sur l'unicité trajectorielles des solutions des équations différentielles stochastiques avec sauts (On the pathwise uniqueness of solutions of stochastic differential equations with jump), University Moulay Ismail Meknès (thesis defended on September 8, **2014**).

9. Member of the Thesis Committee of Mr. Aissa Sghir: Limit theorems and stability in law of some additives functionals of a class of self similar processes, University Mohamed first, Faculty of Sciences, Oujda (thesis defended on April 23, **2014**).

10. Member of the Thesis Committee of Mr. Antoine Hakassou: Processus infiniment divisible par rapport au temps et équations différentielles stochastiques à croissance logarithmique. Cadi Ayyad University, Faculté des Sciences Semlalia Marrakech (thesis defended on July 8, **2013**).

11. Member of the Thesis Committee of Mr. Ibrahima FAYE: Contributions aux équations différentielles stochastiques rétrogrades et aux équations différentielles doublement stochastiques rétrogrades dirigées par un processus de Lévy, Université Gaston Berger Saint-Louis, Sénégal, (thesis defended on June 21, **2013**).

12. Member of the Thesis Committee of Mr. Abdelaziz Bouchen: Domaines numériques et équations différentielles stochastiques multivoques, (N° /2013, thesis defended on June 17, **2013**).

13. President of the Thesis Committee of Madam Siham Bouhadou: Some contributions to the study of local times, stochastic differential equations and gamma processes (N° 05/2013, thesis defended on June 10, **2013**).

14. Member of the Habilitation Thesis Committee of Mr. Mohamed Ait Ouahra: Occupation time problems of some stochastic processes. [Problème du temps d'occupation de certains processus stochastiques], University Mohamed first, Faculty of Sciences, Oujda (thesis defended on Mars 30, **2013**).

15. Member of the Habilitation Thesis Committee of Mr. Mohammed Hassani: Contribution à l'étude des équations différentielles stochastiques rétrogrades avec ou sans réflexion, Cadi Ayyad University, Faculté des Sciences Semlalia Marrakech (N° 048/2012, thesis defended on September 14, **2012**).

16. Member of the Habilitation Thesis Committee of Mr. Farid Chighoub: On Contrôle Optimal des Equations Différentielles Stochastiques, Université de Biskra, Laboratoire de Mathématiques Appliquées, (N° 05/2012, thesis defended on January 30, **2012**).

17. Member of the Thesis Committee of Mr. Khalid Tahri: Représentation et Convergence des Martingales Multivoques et Applications, Université Sid Mohamed Ben Abdellah, Faculté des Sciences et Techniques, Fès-Saiss, Fès (thesis defended on November 30, **2011**).

18. Member of the Thesis Committee **(supervisor)** of Mr. Lahcen Boulanba: On the fractional stochastic partial differential equations, Cadi Ayyad University, Marrakech (N° 301/2010, thesis defended on July 14, **2010**).

19. Member of the Thesis Committee of Mr. Salah Hajji: Contribution to the study of Stochastic functional differential equations and stochastic partial differential equations, Cadi Ayyad University, Marrakech (N° thesis defended on April 6, **2010**).

20. Member of the Thesis Committee **(supervisor)** of Mr. Yassine El Qalli: Interest rates and forward contracts implied by risk neutral and real world pricing-Bayesian estimation, Cadi Ayyad University, Marrakech (N° 276/2009, thesis defended on November 10, **2009**).

21. Member of the Thesis Committee of Mr. Rachid Belfadli, Some contributions to the study of Stochastic differential equations, symmetric stable processes and bifractional Brownian motion Cadi Ayyad University, Marrakech (N° 268/2009, thesis defended on June 24, **2009**).

22. Member of the Thesis Committee of Mr. Khalifa Essebay: Contributions to the study of Lévy processes and fractional processes via the Malliavin calculus and applications to statistics, Cadi Ayyad University, Marrakech (N° 258/2009, thesis defended on April 25, **2009**).

23. Member of the Habilitation Thesis Committee of Mr. El Hassan Es-saky: Backward stochastic differential equations and their Applications, Cadi Ayyad University, Marrakech (N° thesis defended on April 11, **2009**).

24. Member of the Thesis Committee of Mr. Mohamed El Otmani: Approximation et simulation Monte Carlo des équations différentielles stochastiques rétrogrades et application à la finance, Cadi Ayyad University, Marrakech (N° 203/2007, thesis defended on October 18, **2007**).

25. Member of the Thesis Committee of Mr. of Madam Khadija Akdim: Equations différentielles stochastiques rétrogrades, inégalités variationnelles et leurs applications en finance et contrôle stochastique, Cadi Ayyad University, Marrakech (N° 181/2007, thesis defended on April 20, **2007**).

26. Member of the Thesis Committee of Mr. Mohamed Ait Ouahra: Théorèmes limites et grandes déviations pour certains processus stochastiques, Cadi Ayyad University, Marrakech (N° 97/2003, thesis defended on July 7, **2003**).

27. Member of the Thesis Committee of Mr. El Hassan Lakhel: Approximation du mouvement Brownien fractionnaire et régularité des trajectoires du processus intégral de Skorohod dans les espaces de Besov, Cadi Ayyad University, Marrakech (N° 72/2002, thesis defended on July 11, **2002**).

28. Member of the Thesis Committee of Mr. El Hassan Es-saky: Backward stochastic differential equations and their applications to the homogenization of partial differential equations, Cadi Ayyad University, Marrakech (N° 71/2002, thesis defended on July 11, **2002**).

29. Member of the Thesis Committee of Mr. Abdelghani Ben-Tahar: Contribution à l'étude de la stabilité et l'approximation brownienne des réseaux de files d'attente, Université Hassan II Ain Choq, Casablanca (thesis defended **2001**).

30. Member of the Thesis Committee of Mr. A. Yaacoubi, Université Hassan II Ain Choq, Casablanca (thesis defended **2001**).

31. Member of the Thesis Committee of Mr. Mohammed Hassani: Contribution à l'étude des équations différentielles stochastiques rétrogrades, Cadi Ayyad University, Marrakech, (N° 42/2001, thesis defended on April 20, **2001**).

32. Member of the Thesis Committee of Mr. Abdekarem Berkaoui: Approximation des solutions des EDS et régularité du processus intégrale de Skorohod dans les espaces de Besov-Orlicz, Cadi Ayyad University, Marrakech. (N° 9/1999, thesis defended October 16, **1999**).

33. Member of the Thesis Committee (thèse de troisième cycle) of Mr. Abdekarem Berkaoui: Approximation des solutions des équations différentielles stochastiques dans les espaces de Besov-Orlicz, Cadi Ayyad University, Marrakech. (N° 551/1997, thesis defended on December 18, **1997**).

34. Member of the Thesis Committee (thèse de troisième cycle) of Mr. Abdelihah Sbi: Approche des équations stochastiques non anticipatives par les distributions et equations différentielles stochastiques dans un espace nucléaire, Cadi Ayyad University, Marrakech, (N° 507/1997, thesis defended on October 3, **1997**).

5.5 Member of recruitment committee (8)

1. Member of recruitment committee of assistant professor in **Actuarial Sciences** (session June 12, 2011) at INSEA, Rabat.

2. Member of recruitment committee of assistant professor in **Applied Mathematics** (session December 30, 2010) at the Faculty of Sciences and Techniques, Errachidia.

3. Member of recruitment committee of assistant professor in **Numerical Analysis and Optimization** (Session 21 November 21, 2010) at the National School of applied Sciences, Marrakech.

4. Member of recruitment committee of assistant professor in **Mathematics** (session October 21, 2010) at the Faculty of Sciences, Agadir.

5. Member of recruitment committee of assistant professor in **Numerical Analysis and Probability and Statistics** (session October 21, 2010) at the Faculty of Sciences and Techniques, Errachidia.

6. Member of recruitment committee of assistant professor in **Statistics and Actuariel Sciences** (session March 20, 2009) at the Faculty of Sciences and Techniques, Marrakech.

7. Member of recruitment committee of assistant professor in **Econometrics and Finance** (session March 20, 2009) at the Faculty of Sciences and Techniques, Marrakech.

8. Member of recruitment committee of assistant professor in **Statistics** (session March 20, 2009) at the Faculty of Sciences and Techniques, Errachidia.

6 Research visits and invitations (32)

1. **Research visit**: 4 days at KFUPM November 25-28, **2017**, Dhahran, Saudi Arabia.

2. **Research visit**: 25 days at IMUB July 4-28, **2016**, University of Barcelona, Barcelona Spain.

3. **Research visit**: 3 days at KFUPM April 27-30, **2016**, Dhahran, Saudi Arabia. Talk delivered: Pricing financial instruments bridges insurance to PDE.

4. **Research visit**: One week at the laboratory of Statistic and Stochastic processes (LSPS) Sidi Bel Abbès University, Avril 17-23, **2015** Sidi Bel Abbès, Algeria.

5. **Teaching visit**: Ten days at the University of Sciences, Technologies and Medicine, Nouakchott, Mauritania, February 8 to 19, **2015**. During this period, I gave a course (36 hours) on Stochastic calculus and Applications at the master level.

6. **Research visit**: Ten days at the Department of Mathematical Stochastics, University of Freiburg, Germany, July 7-17, **2014** (DAAD Program Hochschuldialog mit der islamischen Welt)

7. **Teaching visit**: Two weeks at the University of Sciences, Technologies and Medicine, Nouakchott, Mauritania, December 20 to 31, **2014**. During this period, I gave a course (36 hours) on Stochastic calculus and Applications at the master level.

8. **Research visit**: One week at the laboratory of Stochastic Models, Statistics and Applications (LMSSA) Tahar Moulay Saida University, February 21-28, **2014** in Saida, Algeria.

9. **Research visit**: Ten days the Department of Mathematical Stochastics, University of Freiburg, August 24-September 2, **2013** in Freiburg, Germany. DAAD project: (Hochschuldialog mit der islamischen Welt) 2013

10. **Teaching visit**: Two weeks at the University of Sciences, Technologies and Medicine, Nouakchott, Mauritania, from June 22 to July 5, **2013**. During this period, I gave a course (36 hours) on Stochastic calculus and Applications at the master level.

11. **Research visit**: Four days at Gaston Berger University Saint Louis Senegal, June 19-22, **2013** (Participation to a thesis committee).

12. **Teaching visit**: Two weeks at the University of Sciences, Technologies and Medicine, Nouakchott, Mauritania from January 25 to February 8, **2013**. During this period, I gave a course on Stochastic calculus and Applications at the master level.

13. **Research visit**: Two weeks at Alexandre Ioan Cuza University, Iasi, Romania from June 25 to July7, **2012**, the framework of the ITN Marie Curie Action.

14. **Research visit**: Ten days in the Laboratory of Applied Mathematics, at Mohamed Kheider University, Biskra Algeria. From January 27 to February 5, **2012**. During this period, I gave a short course on Mathematical Finance: motivations and modeling.

15. **Research visit**: Ten days in the Laboratory PhyMat at the université du Sud Toulon-Var, La Garde, France, October, 19-28 **2011**, Volubilis program CNR-CNRS (l'action intégré MA/10/224).

16. **Research visit**: to Friedrich-Schiller-University Institute of Stochastics, Jena, Germany (from March 21 to April 1, **2011** the framework of the ITN Marie Curie Action.

17. **Research visit**: Ten days in the Laboratory PhyMat at the université du Sud Toulon-Var, La Garde, France, December 19-28 **2010**, Volubilis program CNR-CNRS (l'action intégré MA/10/224).

18. **Research visit**: Two weeks at the Department of Statistics and Operational research at Cadiz University, Spain. **AVERROES grant** from January 24 to February 07, **2010**.

19. **Research visit**: Two weeks at the Department of Statistics and Operational research at Cadiz University, Spain. **AVERROES grant** from June 26 to July 10, **2009**.

20. **Research visit**: to Friedrich-Schiller-University Institute of Stochastics, Jena, Germany, March 2-13, **2009** the framework of the ITN Marie Curie Actions.

21. **Teaching visit**: Two weeks at the Department of Mathematics at the University of Sciences and Techniques of Masuku. Gabon, from May 20 to June 04, **2009** on Stochastic processes at the master level.

22. **Research visit**: Two months at the Department of Mathematics, Faculty of Sciences of the Universitat Autonoma de Barcelona, Spain. **IMAGEEN grant** from June 2 to July 31, **2008**.

23. **Invited Professor**: One month at the Institut de Mathématiques et de Modélisation de Montpelier (I3M), University Montpelier 2, France, from October 01 to November 01, **2006**.

24. **Research visit**: Ten days from September 09-18, **2006** at the laboratory of PhyMat at the University of South Toulon-Var, Toulon, France, CNR-CNRS Program (l'action intégré MA/142/06).

25. **Research visit**: One month from February 09 to March 09, **2004** at the laboratory of PhyMat at the University of Toulon-Var, Toulon, France, CNR-CNRS Program (l'action intégré MA/01/02).

26. **Research visit**: One month from July 01-31, **2001** at the laboratory of PhyMat at the University of Toulon-Var, Toulon, France, CNR-CNRS Program (l'action intégré MA/01/02.)

27. **Research grant**: Awards with the TWAS research grant Ref. 98-199 RG/MATHS/AF/AC

28. **Research visit**: One month from December 18, **1997** to January 17, **1998** at Laboratoire de Probabilités et Statistiques at the University of Cocody Abidjan, Ivory Coast. AUPELF-UREF Program.

29. **Research visit**: One week from June 02-07, **1997** at the Departament d'Estadistica, Facultat de Matemàtiques, Universitat de Barcelona, Spain.

30. **Research visit**: One month from May 02-30, **1997** at Laboratoire de Statistique et Processus Stochastiques at the University of Maine Le Mans, France.

31. **Research visit**: Two weeks from June 26 to July 10, **1995** at the IRMAR, Laboratoire de Statistiques et Processus Stochastiques at the University of Rennes I, France.

32. **Research visit**: One month from June 06 to July 06, **1994** at the IRMAR, Laboratoire de Statistiques et Processus Stochastiques at the University of Rennes I, France.

7 Organization of scientific events (29)

1. Member of the Organizing and Scientific committees of the of the Intensive Summer Courses on Mathematical Analysis and Differential Geometry, August 20-31, **2023**. https://sams.ksu.edu.sa/en

2. Member of the Organizing and Scientific committees of the Summer school on Mathematical Analysis and Differential Geometry, June 19-30, **2022**. https://sams.ksu.edu.sa/ar/WMADG

3. Member of the organizing committee of The **5**$^{\text{th}}$ Conference on Mathematical Science and Applications, KAUST & SAMS (Virtual)), November 17-18, **2021**.

4. Member of the Scientific committee of The **5**$^{\text{th}}$ Conference on Mathematical Science and Applications, KAUST & SAMS (Virtual)), November 17-18, **2021**.

5. Member of the scientific committee of the 4$^{\text{th}}$ **Conference on Mathematical Science and Applications Actuarial and Financial Mathematics** (https://sams.CoS, ksu.edu.sa/en/node/141), King Saud University, April 11-12, **2018**, Riyadh Saudi Arabia.

6. Co-organizer of the Marrakech International Conference on Probability and Statistics (MICPS-2016) (http://micps2016.uca.ma/) April 25-28, **2016**.

7. Co-organizer of the EMA2015: École Mathématique Africaine sous le thème: **Théorie générale des processus stochastiques et Introduction au calcul de Malliavin** (http://ema2015.uca.ma/) October 12-23, **2015**.

8. Co-organizer and member of the scientific committee of the International Conference on Quantitative Finance, Insurance and Risk-Management (http://icqfirm2014.uca.ma/en/index.html), October 9-10, **2014**, Marrakech, Morocco.

9. Co-organizer of Days of Probability in Honor to Professor Brahim Boufoussi, April 29-30, **2014**, Marrakech, Morocco.

10. Co-organizer of the Marrakech International Conference on Probability and Statistics (MICPS-2013) December 17-20, **2013**. http://www.ensa.ac.ma/micps2013/.

11. Member of the Scientific committee of The Algerian-Turkish International days on Mathematics 12-14 September **2013**, Fatih University, Istanbul, Turkey.

12. Chairman on the organizing committee of the CIMPA school on Statistical Methods and applications in Insurance and Finance (http://cimpa2013.uca.ma/), Marrakech (April 8-13) and El Kelaa Mgouna (April 15-20) **2013**.

13. Member of the organizing committee of the thirth congres of SM2A Marrakech Morocco, September 10-13, **2012** http://sm2a-2012.ucam.ac.ma/index.html.

14. Co-organizer and Chairman of the workshop on Stochastic Analysis and Applications from April 9 to 14, 2012 (Ksar Kaissar, El Kelaa Mgouna) in the frame work of the ITN Projet.

15. Co-organizer and Member of the Scientific committee of Days of Probabilities and Statistics Marrakech December 15-17, **2011**.

16. Co-organizer of days Days for Young and Sciences December 2-6 **2011**: Azilal, Beni-Mellal et Marrakech.

17. Chairman of the organizing committee of the Workshop on Stochastic Control Problems for FBSDEs and Applications from 13 to 17 December **2010** in Essaouira. Projet ITN.
18. Chairman of the organizing committee of the Autumn School on Stochastic Control Problems for FBSDEs and Applications from 1 to 11 December **2010** in Marrakech. Projet ITN.
19. Co-organizer od the workshop On Stochastic Analysis and Applications to Finance from May 31 to June 4, **2010**.
20. Co-organizer od the day Stochastic Finance November 9, **2009**.
21. Organizer of the days of Stochastic Analysis and Finance from 27 to 28 April **2009** at Faculty of Sciences and Techniques UCAM, Marrakech, Morocco.
22. Organizer of a thematic day on "consequences of the actual finance crisis" the first November **2008** in Marrakech, Morocco.
23. Co-organizer de la journée d'étude sous le thème "L'Ingénierie Financière: Quelles opportunités pour les PME Marocaines ?" à la Chambre de Commerce, d'Industrie et des Services de Marrakech le 3 Mai, **2008**
24. Co-organizer of the CIMPA School on: Stochastic Models in Mathematical Finance to be held in Marrakech from 9 to 20 April **2007**.
25. Co-organizer of the third International conference on Stochastic Analysis and Probabilities 13-17 December, Marrakech, **2005**.
26. Co-organizer of Journées de Probabilités et Potentiel le 12-13 Avril à la FSTG, Marrakech, **2001**.
27. Organizer of Journées de Probabilités 14-15 Juin à la FSTG, Marrakech, **1999**.
28. Co-organizer of the second International conference on Stochastic Analysis and Probabilities 28 April to 02 May, Marrakech, **1998**.
29. Co-organizer of the first International conference on Stochastic Analysis and Probability 26-28 April, Marrakech, **1997**.

8 Publications

8.1 Refereed Journal Publications (52)

1. (2025) Corrigendum of quadratic BSDEs with jumps and related PIDEs *Stochastics* 20 Jan 2025 (5 pages), https://doi.org/10.1080/17442508.2025.2452852 (with I. Madoui and N. Khelfallah).
2. (2024) Well-posedness of a Nonlinear Stochastic Model for a Chemical Reaction in Porous Media and Applications. *AIMS Mathematics* 2024 **9**(9) 24860-24886, https://doi.org/10.3934/math.20241211 (with M. Mohammed and H. El-Otmany).
3. (2024) One-Dimensional BSDEs with Jumps and Logarithmic Growth. *Axioms* 2024, **13**(6), 354, https://doi.org/10.3390/axioms13060354 (with E.M.B. Bouhadjar, N. Khelfallah).
4. (2024) Number of Volatility Regimes in the Muscat Securities Market Index in Oman Using Markov-Switching GARCH Models. *Symmetry* 2024, 16(5), 569, https://doi.org/10.3390/sym16050569 (with B. Benaid, I. Al Hasani).
5. (2024) Actuarial Valuation and Hedging of Life Insurance Liabilities in the Presence of Stochastic Mortality Risk under the Locally Risk-Minimizing Hedging Approach. *Symmetry* 2024, **16**(2), 165, https://doi.org/10.3390/sym16020165 (with M. Elfarissi, A. Goumar).
6. (2024) Well-Posedness of Backward Stochastic Differential Equations with Jumps and Irregular Coefficients. *Fractal and Fractional* 2024, **8**(1), 26, https://doi.org/10.3390/fractalfract8010026.
7. (2023) Infinite Horizon Irregular Quadratic BSDE and Applications to Quadratic PDE and Epidemic Models with Singular Coefficients. *Axioms* 2023, **12**(12), 1068, https://doi.org/10.3390/axioms12121068 (with O. Kebiri, A. Sene).
8. (2023) Numerical Solutions of Stochastic Differential Equations with Jumps and Measurable Drifts. *Mathematics* **11**(17), 3755, https://doi.org/10.3390/math11173755 (with M. Siddiqui, O. Kebiri).

9. (2023) Stochastic Modeling for Describing Crystallization Droplets in Water Emulsion. *Stochastic Processes and their Applications* **163**, 237-261, https://doi.org/10.1016/j.spa.2023.06.003 (with H. El-Otmany, A. Almualim, T. El Rhafiki).

10. (2023) Malliavin Regularity of Non-Markovian Quadratic BSDEs and Their Numerical Schemes. *Axioms* **12** (4), 366, https://doi.org/10.3390/axioms12040366 (with S. Doubbagh, N. Khelfallah, A. Almualim).

11. (2023) Multidimensional Markovian BSDEs with Jumps and Continuous Generators. *Axioms* **12** (1), 26, https://doi.org/10.3390/axioms12010026] (with A. Almualim, N. Khelfallah, I. Madoui).

12. (2022) Backward Stochastic Differential Equations Driven by a Jump Markov Process with Continuous and Non-Necessary Continuous Generators, *Fractal and Fractional* **6** (6), 331, https://doi.org/10.3390/fractalfract6060331 (with K. Abdelhabi, N. Khelfallah, A. Almualim).

13. (2022) Numerical Solution of Quadratic SDE with Measurable Drift. *Filomat* **36** (15), 5263-5278, https://doi.org/10.2298/FIL2215263E (with L. Mchiri, M. Rhaima).

14. (2022) Quadratic BSDEs with Jumps and Related PIDEs, *Stochastics* **94** (3), 386-414, https://doi.org/10.1080/17442508.2021.1935951 (with I. Madoui and N. Khelfallah).

15. (2020) Reflected BSDEs with Jumps in Time-Dependent Convex càdlàg Domains. *Stochastic Processes and their Applications* **130**, 6515-6555, https://doi.org/10.1016/j.spa.2020.06.001 (with I. Fakhouri and Y. Ouknine).

16. (2020) Multidimensional BSDEs with Mixed Reflections and Balance Sheet Optimal Switching Problem. *International Conference on Computational Science*, 575-589. (with R. Belfadli, I. Fakhouri and Y. Ouknine).

17. (2020) A Balance Sheet Optimal Multi-Modes Switching Problem. *Afrika Matematika*, Volume **31**, 219-236 (with I. Fakhouri and Y. Ouknine).

18. (2019) Mean-Field Optimal Multi-Modes Switching Problem: A Balance Sheet. *Stochastics and Dynamics.* **18** (6) 1950026 (23 pages) (with I. Fakhouri and Y. Ouknine).

19. (2018) Characterization of Submartingales of a New Class (Σ^r), *Stochastic Analysis and Applications.* 36 (3), 534-545 (with K. Akdim and M. Haddadi).

20. (2017) Quadratic BSDE with $\mathbb{L}^2$-Terminal Data: Krylov's Estimate, Itô-Krylov's Formula and Existence Results. *The Annals of Probability* **45** (4): 2377-2397 (with K. Bahlali and Y. Ouknine).

21. (2017) L^p ($p \geq 2$)-Solutions of Generalized BSDEs with Jumps And Monotone Generator in a General Filtration. *Modern Stochastics: Theory and Applications* **4** (1) 25-63 (with I. Fakhouri and Y. Ouknine).

22. (2016) Computation of Greeks in LIBOR Models Driven by Time-inhomogeneous Lévy Processes. *Applied Mathematical Finance* **23** (3), 236-260 (with E. Eberlein and S.M. Lalaoui Ben Cherif).

23. (2015) Computation of Greeks for Jump Diffusion Models. *International Journal of Theoretical and Applied Finance* Vol. **18** (6), 1550039 (30 pages). (with S.M. Lalaoui Ben Cherif and A. Nasroallah).

24. (2014) Long Memory in Electricity Prices Return and Volatility: Evidence from OMEL and OMIP markets. *The Empirical Economics Letters.* **13** (11), ISSN 1681 8997 (with El Qalli and Lotfi).

25. (2013) Solvability of Some Quadratic BSDEs Without Exponential moments, *C. R. Acad. Sci. Paris, Ser. I* 351 (5-6), 229-233 (with K. Bahlali and Y. Ouknine).

26. (2010) Real World Pricing and Affine Representation for Forward contracts. *Wilmott Journal* **2** (1), 35-59. (with El Qalli).

27. (2010) Real World Pricing for Forward Contracts. *International Journal of Mathematics and Statistics*, **7**, 73-80. (with El Qalli).

28. (2010) Fractional SPDEs Driven by Spatially Correlated Noise: Existence of the Solution and Smoothness of its Density. *Osaka Journal of Mathematics.* 47 (1), 41-65 (with Boulanba and Mellouk).

29. (2008) Stability and Genericity for SPDEs Driven by Spatially Correlated Noise. *Journal of Mathematics of Kyoto University,.* **48** (4), 699-724 (with K. Bahlali and M. Mellouk).

30. (2007) Renormalization of the Local Time for the d-Dimensional Fractional Brownian Motion with N-Parameters. *Nagoya Mathematical Journal.* **186**, 173-191. (with R. Lacayo, J.L. Sole, C.A. Tudor and J. Vives).

31. (2005) A Stroock Formula for a Certain Class of Lévy Processes and Applications to Finance. *Journal of Applied Mathematics and Stochastic Analysis.* **3**, 211-235 (with J.L. Sole and J. Vives).

32. (2005) Regularity of the Local Time for the d-Dimensional Fractional Brownian Motion with N-Parameters. *Stochastic Analysis and Applications.* **23** (2), 383-400. (with R. Lacayo, J.L. Sole, C.A. Tudor and J. Vives).

33. (2004) Quasi-Linear Parabolic SPDEs with Continuous Coefficients. *African Diaspora Journal of Mathematics.* **1** (1), 85-95. (with K. Bahlali and E. Essaky).

34. (2003) Large Deviations and Functional Law for Solutions Hyperbolic SPDE. *Random Operators & Stochastic Equations.* **11** (4), 307-332. (with M. Ait Ouahra and E. Lakhel).

35. (2003) Chaotic Expansion and Smoothness of Some Functionals of the Fractional Brownian Motion. *Journal of Mathematics of Kyoto University.* **43** (2), 349-368. (with J. Vives).

36. (2003) BSDE Associated with Lévy Processes and Application to PDIE. *Journal of Applied Mathematics and Stochastic Analysis.* 16 (1), 1-17. (with K. Bahlali and E. Essaky).

37. (2002) A Logarithmic Sobolev Inequality for One-Dimensional Multivalued Stochastic Differential Equations. *Probability and Mathematical Statistics.* **22** (1), 13-18 (with B. Djehiche and Y. Ouknine).

38. (2002) Strassen's Local Law for Diffusion Processes Under Strong Topologies. *Acta Mathematica Vietnamica.* **27** (2), 151-163. (with M. N'zi).

39. (2002) Limit Theorems for Bsde with Local Time Applications to Non-Linear PDE. *Stochastics and Stochastic Reports.* **73** (1-2), 159-179 (with Y. Ouknine).

40. (2001) Théorèmes Limites pour Certaines Fonctionnelles Associées aux Processus Stables sur L'Espace de Hölder. *Publicacions Matematiques.* **45** (2), 371-386, (with M. Ait Ouahra).

41. (2001) Hedging Options in Market Models Modulated by Fractional Brownian Motion. *Stochastic Analysis and Applications.* **19** (5), 753-770, (with B. Djehiche).

42. (2001) Multivalued SPDEs driven by additive space-time white noise and additive white noise. *Random Operators & Stochastic Equations.* **9** (2), 103-120, (with Y. Ouknine).

43. (2000) Freidlin-Wentzell type estimates for hyperbolic SPDEs in Besov-Orlicz spaces and applications. *Stochastic Analysis and Applications.* **18** (5), 697-722, (with B. Boufoussi and M. N'zi).

44. (2000) Large deviation estimates and functional law for diffusions in modulus spaces. *Random Operators & Stochastic Equations.* **8** (4), 373-396.

45. (1999) Large deviations for a stochastic Volterra-type equation in the Besov-Orlicz space. *Stochastic Processes and their Applications.* **81** (1), 39-72, (with B. Djehiche).

46. (1999) Grandes déviations des diffusions sur les espaces de Besov-Orlicz et applications. *Stochastics and Stochastics Reports.* **65**, 299-315, (with M. N'zi and Y. Ouknine).

47. (1998) EDPS paraboliques à coefficients non Lipschitziens avec réflexion. *Annales Mathématiques Blaise Pascal.* 5 (2), 7-19, (with Erraoui).

48. (1998) On Quasi-linear parabolic SPDEs with non-Lipschitz coefficients. *Random Operators & Stochastic Equations.* **6** (2), 101-122, (with Erraoui).

49. (1997) Sur la dérivée fractionnaire du temps local Brownien. *Probability and Mathematical Statistics.* **17** (2), 311-319, (with B. Boufoussi and A. Kamont).

50. (1997) Large deviations for solutions of hyperbolic SPDEs in the Hölder norm. *Potential Analysis.* **7**, 517-537.

51. (1997) Grandes déviations des diffusions sur les espaces de Besov-Orlicz. *Bulletin des Sciences Mathématiques.* **121**, 573-584, (with Y. Ouknine).

52. (1997) Applications des transformées de Radon à la décomposition de certains processus de Dirichlet. *Afrika Matematika.* **7** (3), 71-82.

53. (1996) A note on the functional law of the iterated logarithms for Lévy's area process. *Applicationes Mathematicae.* **24** (2), 223-229, (with M. N'zi).

8.2 Refereed Conference Publications (3)

1. (2016) Option pricing and sensitivity analysis in the Lévy forward process model. *Innovations in Derivatives Markets: Fixed Income Modeling, Valuation Adjustments, Risk Management, and Regulation* 2016 Dec. 3 (pp. 285-313). Cham: Springer International Publishing. Munich-Germany (Mar. 30 to Apr. 01, 2015). (Joint work with E. Eberlein and S. M. Lalaoui Ben Cherif).

2. (2016) Sensitivity analysis for time-inhomogeneous Lévy process: A Malliavin calculus approach and numerics. *In Statistical Methods and Applications in Insurance and Finance: CIMPA School, Marrakech and Kelaat M'gouna, Morocco, April 2013* (pp. 39-80). Springer International Publishing. (with S. M. Lalaoui Ben Cherif)

3. (1996) Un théorème de régularité de la dérivée fractionnaire du temps local Brownien. Actes CIMASI'96, Tome I, 302-307, (with Boufoussi)

8.3 Workshops & Conferences Presentations (87)

1. Participant to the First International Congress on Applied Mathematics and Artificial Intelligence (ICAMAI'24) 1-3 Jul 2024 Fez (Morocco). During this congress I presented a talk entitled *Probabilistic Representation of Singular PIDEs by Solutions of Irregular BSDEs with Jumps.*

2. Participant to the Winter school on **Stochastic and Deterministic Analysis of Irregular Models (SDAIM)**, January 8-12, **2024**. https://conferences.cirm-math.fr/2993.html. During this school I presented a talk entitled *Existence of solutions of singular stochastic differential equations with jumps.*

3. Participant to the **Intensive Summer Courses on Mathematical Analysis and Differential Geometry**, August 20-31, **2023**. https://sams.ksu.edu.sa/en. During this workshop I presented a series of lectures on *Integration Theory.*

4. Participant to the **Summer school on Mathematical Analysis and Differential Geometry**, June 19-30, **2022**. https://sams.ksu.edu.sa/ar/WMADG. During this school I presented a series of lectures on *Integration Theory.*

5. Invited keynote speaker in the **International Online Conference on Applied Mathematics (IOCAM22) June 1-3**, **2022** (https://iocam22.sciencesconf.org/), organized by Sidi Mohamed Ben Abdellah University, Fes, Morocco, with a talk entitled: *Recent developments on backward SDEs with Jumps and Related PIDEs.*

6. Invited speaker at the **First study day on Probability** (https://www.univ-saida.dz/jiprob1/) at University Dr. Tahar Moulay, Saida, Algeria, https://www.univ-saida.dz/ **(IDP'22) March 16**, **2022** with a talk entitled: *Numerical solution of singular stochastic differential equations.*

7. Invited speaker in the **5th Conference on Mathematical Science and Applications**, KAUST & SAMS (Virtual), November 17-18, **2021**, with a talk entitled: *Stochastic partial differential approach for describing crystallization droplets in water emulsion.*

8. Invited speaker in the workshop on the 5th **workshop on Recent Developments in PDEs and Applications, KFUPM, January 27-28, 2021** with a contributed talk entitled: *Probabilistic representation of viscosity solution to quadratic PIDE.*

9. Invited speaker in the **Research CIMPA School on Stochastic Analysis and Applications** (https://univ- saida.dz/cimpa2019/en/acc.php) Tahar Moulay Saida University, March 1-9, **2019** in Saida, Algeria. Intensive course on: *Essentiel du Calcul Stochastique et Applications.*

10. Invited speaker in the **workshop on Stochastic and Computational Finance** (https://conferences.uaeu.ac.ae/scf19/en/index.shtml)United Arab Emirate University, February 20-21, **2019**, Al-Ain, UAE.

11. Participant to the 4th **Conference on Mathematical Science and Applications: Actuarial and Financial Mathematics** (https://sams.CoS, KSU.edu.sa/en/node/141) King Saud University, April 11-12, **2018**, Riyadh Saudi Arabia.

12. Invited speaker at the **Workshop on: Stochastic Differential Equations and Applications**, with a contributed talk entitled: *On quadratic backward SDEs and related PDEs*, November 27, **2017**, Dhahran, KFUPM, Saudi Arabia.

13. Invited speaker **School on Stochastic Analysis and its Applications** (http://gtspa2017.uca.ma): *Four lectures: On the link between stochastic processes and PDEs*, Marrakech, April 3-14, **2017**.

14. Participant to the **Actuarial and Financial Mathematics: Towards a knowledge and professional partnership**. Mathematics Department, COS, KSU, Riyadh, February 8, **2017**, with a contributed talk entitled: *Actuarial Science and Financial Mathematics: A key to promising prospects.*

15. Participant to the **International Joint Seminar on Science and Technology** Marrakech, February 09-11 **2016**. FST, Marrakech, with a contributed talk entitled: *From actuarial sciences to mathematical finance: an example.*

16. Invited speaker at the **International Conference on Applied Mathematics Safi** (http://cimas.uca.ma/), November, 10-12, **2015**, Safi, Morocco, with a contributed talk entitled: *Malliavin calculus and Sensitivity analysis for time-inhomogeneous Lévy process.*

17. Invited speaker at the 2^{th} **annual seminar on Applied Mathematics to Health Sciences, Engineering and Finance**, April 16-17, **2015**, UIC, Casablanca, Morocco, with a contributed talk entitled: *Option pricing and sensitivity analysis in the Lévy forward process model.*

18. Invited speaker at the **Quartième Ècole Mathématique Africaine (EMA) sous le thème: Outils Mathématiques pour la Finance et l'Actuariat** qui a eu lieu à Douala, Cameroun du 1 au 12 Décembre **2014**. *Mini-course On Stochastic Calculus for Finance.*

19. Participant to the **International Conference on Quantitative Finance, Insurance and Risk-Management**. (http://icqfirm2014.uca.ma/en/index.html), October 9-10, **2014**, Marrakech, Morocco, with a contributed talk entitled: *On Quadratic BSDE and Applications.*

20. Participant to the 9^{th} **Euro-Maghrebian Workshop on Evolution Equations** (http://euromaghrebianworkshop9.uca.ma/), September, 22-26, **2014**, Marrakech, Morocco, with a contributed talk entitled: *Probabilistic representation of solutions of some fractional PDE.*

21. Invited to the 7^{th} **International Symposium on Backward Stochastic Differential Equations**, June 22-27, **2014**. Shandong University, Ji'Nan & Weihai, P.R.China. http://211.86.56.196/BSDE2014/participants.htm. The title of the talk is: *Quadratic BSDEs with rough drivers and L^2-terminal condition and applications.*

22. Invited and member of the scientific committee of the **International Workshop on Stochastic calculus and its applications**, Tahar Moulay Saida University, May 28, 29 and 30, **2014** in Saida, Algeria, with two plenary lectures entitled: *Quadratic BSDEs with rough drivers and applications.*

23. Participant to **Days of Probability in Honor to Professor Brahim Boufoussi** ,April 29-30, **2014**, Marrakech, Morocco, with a contributed talk entitled: *Quadratic BSDEs with rough drivers.*

24. Participant to the **Day of Probability and Statistics** University Mohamed first, Oujda, Morocco, June 23, **2014**, with a contributed talk entitled: *On BSDEs of quadratic type.*

25. Participant to **CIMPA School and Conference on Lévy processes and self-similarity**, Hammamet, Tunisia, November 4-9, **2013**, with a contributed talk entitled: *On time-inhomogeneous Lévy process, Malliavin calculus and its application in finance.*

26. Participant to **CIMPA School and Conference on Lévy processes and self-similarity**, Nabeul, Tunisia, October 28-November 3, **2013**, with a contributed talk entitled: *Probabilistic representation of solutions of some fractional PDE.*

27. Participant to **ATIM2013: The Algerian-Turkish International days on Mathematics** September 12-14, **2013**, Fatih University, Istanbul, Turkey, with a contributed talk entitled: *Probabilistic interpretation of some partial differential equations.*

28. Participant to **The conference Ars Conjectandi A celebration of 300 years of Stochastics**, Freiburg and Basel, May, 21-24, **2013**, with a contributed talk entitled: *State of the Art of Stochastic Analysis in North Africa the cases of Morocco and Algeria.*

29. Participant to **The Second Workshop on the Application of Stochastic Models in Finance and in Risk Management (ASMoFiRM)**, FSJES, Rabat, Morocco, December 20, **2012**, with a contributed talk entitled: *Stochastic Models and Risk Management in Finance.*

30. Participant to the **Days for Young and Science** December 1-5, Edition **2012** with a contributed talk entitled: *Clean energy: Modeling, management and optimization.*

31. Participant to **The International workshop On Mathematic and Environmen**t, EST, Essaouira, November 23-24, **2012**, with a contributed talk entitled: *Probabilistic interpretation of Partial Differential Equations.*

32. Participant to the **Conference on risks**, Rabat October 4-5, **2012**.

33. Participant to the USTM workshop on Entrepreneurship, Monastir, Tunisia, July 15-19, **2012**.

34. Participant to the **ITN conference organized in IASI Romani**a July, 2-7, **2012**, with an invited talk entitled: *Regularity of the solution of SDE with measurable drift.*

35. Participant to **JIASTA2012: Journées Internationales de Statistique Théorie et Applications** du 3 au 7 Juin **2012** with a contributed talk entitled: *On the derivability of the solution of SDE with measurable drift*

36. Invited Participant to Journée TEDx Jammaelfna: Marrakech la continuité (1ère édition) Marrakech, 29 Avril **2012** avec une conférence intitulée: Quelques Applications des Sciences Mathématiques: Une Motivation pour les Jeunes.

37. Invited Participant aux **Journées sur Les Risques Naturels et Industriels** (1ère édition) Rabat, CNRST, 25 et 26 Avril **2012** avec une communication intitulée: *Mesure et gestion des risques en finance et en assurance.*

38. Participant to the **ITN Workshop on Stochastic Analysis and Applications** Ksar Kaissar El Kelaa Mgouna (from April 9 to 14 **2012)** with an invited talk entitled: *Itô-Krylov formula in Quadratic BSDEs.*

39. Participant to the **ITN Spring School on Stochastic analysis in Finance**, Roscoff, France (from March 6 to 15 **2012** with an invited talk entitled: *Krylov's inequality and Itô-Krylov formula in Quadratic BSDEs.*

40. Participant à la journée, sur l'Enseignement des Sciences, organisée par l'académie Hassan II des Sciences et Techniques le 10 Février **2012** à Rabat.

41. Participation à la **Journée de Mathématiques à la mémoire du Professeur Seid Bahlali** le 31 Janvier **2012** au Laboratoire de Mathématiques Appliquées, Université Mohamed Kheider, Biskra Algérie. Titre de la conférence: *Inégalité de Krylov et Formule de Itô-Krylov dans les EDSRs quadratique.*

42. Participant aux **Journées de Probabilités et Statistique de Marrakech** 15-17 Décembre **2011**, ENSA, Marrakech: *Krylov's inequality and Itô-Krylov formula in Quadratic BSDEs.*

43. Participant aux Journées Jeunes et Sciences 2-6 Décembre **2011**, Azilal, Beni-Mellal et Marrakech: Quelques applications des mathématiques en finance et en assurance.

44. Participant to **Journées de Probabilités**, April 27 and 28, **2011**, Marrakech with an invited talk entitled: *Chaos expansion of some functionals of the fBm applications.*

45. Participant to the **Spring School on Stochastic models in Finance and Insurance**, Jena, Germany (from March 21 to 1 April **2011** with an invited talk entitled: *Chaos expansion of some functionals of the fBm and Lévy processes and applications.*

46. Participant to the **Autumn School and Workshop on Stochastic Control Problems for FBSDEs and Application**s from 1 to 18 December **2010**, Marrakech (School December 1-11) and Essaouira (workshop December 13-18), **2010** with a talk entitled: *On class of quadratic Backward stochastic differential equations and applications.*

47. Participant to the workshop On **New advances in backward SDEs for financial engineering applications** October 25-28, **2010**, Tamaghza, Tunisia, with a talk entitled: *Limit theorems for BSDE with local time applications to non-linear PDE.*

48. Participant to the **workshop On Stochastic Analysis and Applications to Finance** from May 31 to June 4, **2010** in which I have given a mini-course: *On Introduction financial derivatives and risk management.*

49. Invited to la journée Actuariat-Finance, INSEA, Rabat, 15 Mai, **2010**.

50. Invited talk on Défit des Mathématiques dans le domaine de la finance au Centre des classes préparatoires (Lycée Agadir 24 Avril **2010**).

51. Participant to the Forum Didact Expo, Attaraji, Agadir 23-24 Avril **2010**.

52. Participant to the Workshop on "Stochastic control and finance" Roscoff, France (from 18 to 23, March **2010**), with a talk entitled: Fractional SPDEs driven by spatially correlated noise: existence of the solution and smoothness of its density. (joint work with L. Boulanba, M. Mellouk).

53. Participant and co-organizer des Journées Jeunes et Sciences au service du développement (Marrakech et Agadir) 8-12 Décembre **2009**.

54. Participant to Journées de sensibilisation et d'information aux lycées (Zagora, Ouarzazate, Boumalene, et Tinghir) 13, 14 et 15 Avril **2009**.

55. Participant to the **Workshop on Finance and Insurance**, Jena, Germany (from 16 to 20, March **2009**).

56. Participant to the Spring School on **Finance and Insurance - Stochastic Analysis and Practical Methods**, Jena, Germany (from 2 to 13, March **2009**).

57. Participant to the **First Hispano-Moroccan Days on Applied Mathematics and Statistics** Tetouan, Morocco, December 17-19, **2008**, with a contributed talk entitled: *Real World Pricing for Forward Contracts.*

58. Participant to the Barcelona Financial Engineering Summer School June 30 to July 8, **2008:** The practice of derivatives modelling.

59. Participant to the CRM Thematic day: **New Perspectives on Malliavin Calculus**. 25 Juin **2008**.

60. Participant to the **International Workshop on Recent Advances in Transport** from 7 to 8 May, Marrakech **2008**.

61. Participant à la journée scientifique sous le thème **Mathématiques et Application à la Finance** à l'École Supérieure de Technologie d'Essaouira organise le 26 Avril **2008**. "*Mesure martingale et EDP en finance*".

62. Participant (invited) to the **School Symposium EDGD07** Saida Algeria from 11 to 14 November **2007**. Four lectures on "*Introduction to stochastic differential equations and applications to finance and PDEs*".

63. Participant aux Journées de Probabilités Université de Sud Toulon-Var, France du 9 au 14 Septembre **2007**.

64. Participant to the **International conference on Stochastic Analysis and Probabilities** 26-28 June, Marrakech, **1997**, with a contribution entitled: *Grandes déviations de Freidlin-Wentzell des EDPS hyperboliques non linéaire sur les espaces modulaires.*

65. Participant aux journées de statistiques de Beni Mellal 25-26 Mai **2007** avec une contribution intitulée: Introduction aux mathématiques financières.

66. Participant to the 4$^{\text{th}}$ **International Workshop on Stochastic Analysis and Applications**, Biskra, Algeria, December 16-18, **2006** with a contribution entitled: *Fractional SPDEs driven by spatially correlated noise: existence, uniqueness and regularity of solutions.*

67. Participant to **Mathematical takeoffs from Barcelona, CRM, UAB**, Barcelona September 21 to 23, **2006** with a contribution entitled: *Chaos expansion of the local time for the d-dimensional fBm with N-parameters and applications.*

68. Participant to **Journées de Probabilités du CIRM Marseille**, France du 18 au 22 Septembre **2006** with a contribution entitled: *Equations aux dérivées partielles stochastiques fractales.*

69. Participant to the **Marrakech World Conference on Differential Equations and Applications**, 15-20, June **2006** with a contribution entitled: *Fractional Stochastic partial differential equations driven by spatially correlated noise.*

70. Participant aux **Journées nationales: Analyse Statistique: Théorie et Modélisation** Oujda du 2 au 3 Juin **2006** with a contribution entitled: *Methods of replicating portfolio in financial markets.*

71. Participant to **Journées de Probabilités du CIRM Marseille**, France du 6 au 10 Septembre **2004** with a contribution entitled: *Stability and generically for s.p.d.e. driven by spatially correlated noise.*

72. Participant at the 6$^{\text{th}}$ **World congress of the Bernoulli Society** held at the University of Barcelona from 26-31 July **2004**.

73. Participant aux **Journées de Probabilités de la Rochelle**, France du 9 au 13 Septembre **2002** with a contribution entitled: *Chaotic expansion and smoothness of some functionals of the fractional Brownian motion.*

74. Participant at the **Euro Summer School on Advanced Course on the Mathematical Finance**: Further models. CRM, UAB, Barcelona July 1 to 6, **2002**.

75. Participant at the **Euro Conference of Stochastic Inequalities and their Applications**. CRM, UAB, Barcelona, June 17 to 21, **2002**.

76. Participant at the Summer School of on Stochastic and Finance at the University of Barcelona from 3-7 September **2001**.

77. Participant à l'école CIMPA sur Méthodes Probabilistes pour les ÉQuations aux Dérivées Partielles, du 6-21 Avril **2000**, Marrakech. with a contribution entitled: *Développement en chaos de Wiener de certaines fonctionnelles additives du mouvement Brownien.*

78. Participant (invité) à **l'École de Finance et Mathématiques** du 6-10 Septembre **1999** (INSEA, Rabat). Au cours de cette école j'ai donné quatre conférences sur le *Calcul Stochastique Appliqué à la Finance.*

79. Participant à la **Journée d'Analyse Stochastique de Méknès** 28 Juin **1999** (Faculté des Sciences de Méknès), with a contribution entitled: *On BSDEs with local time and related PDEs.*

80. Participant to the Advanced course on Stochastic Analysis Barcelona du September 1-10, **1997**, with a contribution entitled: Estimations de grandes déviations et lois fonctionnelles des diffusions sur les espaces modulaires.

81. Participant to la **Conférence International sur les Mathématiques Appliqués et les Sciences de l'ingénieur**. 14-16 Novembre **1996**, with a contribution entitled: *Un Théorème de régularité de la dérivée fractionnaire du temps local Brownien.*

82. Participant to **Quatrième Congrès Panafricain des Mathématiques Ifrane**. 18-26 Septembre **1995**, with a contribution entitled: *Large deviations for solutions of parabolic SPDEs in Hölder norm.*

83. Participant to l'École d'Été du Calcul des Probabilités de Saint-Flour du 10 au 26 Juillet, **1995**, with a contribution entitled: *Grandes déviations des diffusions deux paramètres en norme Hölderienne.*

84. Participant to la deuxième conférence international sur les équations différentielles, Marrakech du 16-20 Juin **1995**, with a contribution entitled: *Quasi sure convergence of successive approximation for parabolic SPDEs.*

85. Participant to Journées d'Analyse non linéaire à la Faculté des Sciences et Techniques, Marrakech, 26-28 Avril **1995**, with a contribution entitled: *Grandes déviations des diffusions sur les espaces de Besov-Orlicz.*

86. Participant to l'École d'Été du Calcul des Probabilités de Saint-Flour du 07 au 23 Juillet **1994**, with a contribution entitled: *Applications des transformées de Radon la décomposition de certains processus de Dirichlet.*

87. Participant to Journées d'Analyse à la Faculté des Sciences et Techniques, Marrakech. 27-28 Avril **1994**, with a contribution entitled: *Sur les intégrales stochastiques.*

8.4 Edited Books (2)

1. (2009) (co-éditeur avec S. Hamadène et Y. Ouknine) Modèles aléatoires en finance mathématique. Published by Hermann, **77**, 2009 ISBN 10: 2705669701 / ISBN 13: 9782705669706.

2. (2016) (co-editor) Springer proceeding of Probability and Statistics **158**, Statistical Methods and Applications in Insurance and Finance (with E. Essaky and J. Vives).

9 Teaching experience

Recently my teaching duties focus mainly on the following topics

9.1 Academic year 2024-2025 (Actuarial and Financial Mathematics Bachelor program)

9.1.1 Spring 2025

1. **ACTU 372** Bachelor: Actuarial Mathematical models I
2. **ACTU 472** Bachelor: Actuarial Mathematical models II
3. **ACTU 474** Bachelor: Risk theory
4. **ACTU 498** Bachelor: Training Field Experience

9.1.2 Fall 2024

1. **ACTU 372** Bachelor: Actuarial Mathematical models I
2. **ACTU 472** Bachelor: Actuarial Mathematical models II
3. **ACTU 474** Bachelor: Risk theory
4. **ACTU 498** Bachelor: Training Field Experience

9.2 Academic year 2023-2024 (Actuarial and Financial Mathematics Bachelor program)

9.2.1 Spring 2024

1. **MATH 700** Dissertation (Ph.D.)
2. **ACTU 372** Bachelor: Actuarial Mathematical models I
3. **ACTU 472** Bachelor: Actuarial Mathematical models II
4. **ACTU 474** Bachelor: Risk theory
5. **ACTU 498** Bachelor: Training Field Experience

9.2.2 Fall 2023

1. **MATH 700** Dissertation (Ph.D.)
2. **ACTU 372** Bachelor: Actuarial Mathematical models I
3. **ACTU 472** Bachelor: Actuarial Mathematical models II
4. **ACTU 474** Bachelor: Risk theory
5. **ACTU 498** Bachelor: Training Field Experience

9.3 Academic year 2022-2023 (Actuarial and Financial Mathematics Bachelor program)

9.3.1 Third Trimester 2022-2023

1. **MATH 700** Dissertation (Ph.D.)
2. **ACTU 372** Bachelor: Actuarial Mathematical models I
3. **ACTU 472** Bachelor: Actuarial Mathematical models II
4. **ACTU 474** Bachelor: Risk theory
5. **ACTU 498** Bachelor: Training Field Experience

9.3.2 Second Trimester 2022-2023

1. **MATH 700** Dissertation (Ph.D.)
2. **ACTU 372** Bachelor: Actuarial Mathematical models I
3. **ACTU 472** Bachelor: Actuarial Mathematical models II
4. **ACTU 474** Bachelor: Risk theory
5. **ACTU 498** Bachelor: Training Field Experience

9.3.3 First Trimester 2022-2023

1. **MATH 700** Dissertation (Ph.D.)
2. **ACTU 372** Bachelor: Actuarial Mathematical models I
3. **ACTU 472** Bachelor: Actuarial Mathematical models II
4. **ACTU 474** Bachelor: Risk theory
5. **ACTU 498** Bachelor: Training Field Experience

9.4 Academic year 2021-2022 (Actuarial and Financial Mathematics Bachelor program)

9.4.1 Spring 2022

1. **MATH 699** PhD: Thesis Proposal Preparation
2. **MATH 5391** Master: Selected Topics in Mathematical
3. **ACTU 372** Bachelor: Actuarial Mathematical models I
4. **ACTU 472** Bachelor: Actuarial Mathematical models II
5. **ACTU 498** Bachelor: Training Field Experience

9.4.2 Fall 2021

1. **ACTU 498** Bachelor: Training Field Experience
2. **ACTU 372** Bachelor: Actuarial Mathematical models I
3. **ACTU 472** Bachelor: Actuarial Mathematical models II
4. **ACTU 474** Bachelor: Risk theory

9.5 Academic year 2020-2021 (Actuarial and Financial Mathematics Bachelor program)

9.5.1 Spring 2021

1. **MATH 515** PhD: Selected Topics In Mathematical Modelling
2. **ACTU 499** Bachelor: Training Field Experience
3. **ACTU 372** Bachelor: Actuarial Mathematical models I
4. **ACTU 472** Bachelor: Actuarial Mathematical models II
5. **ACTU 474** Bachelor: Risk theory

9.5.2 Fall 2020

1. **ACTU 499** Bachelor: Training Field Experience
2. **ACTU 372** Bachelor: Actuarial Mathematical models I
3. **ACTU 472** Bachelor: Actuarial Mathematical models II
4. **ACTU 474** Bachelor: Risk theory

9.6 Academic year 2019-2020 (Actuarial and Financial Mathematics Bachelor program)

9.6.1 Spring 2020

1. **ACTU 372**: Actuarial Mathematical models I
2. **ACTU 462**: Actuarial Mathematics II
3. **ACTU 464**: Risk theory
4. **ACTU 499**: Training Field Experience
5. **MATH 690**: PhD Advanced topics in mathematics

9.6.2 Fall 2019

1. **ACTU 362**: Actuarial Mathematics I
2. **ACTU 462**: Actuarial Mathematics II
3. **ACTU 464**: Risk theory
4. **MATH 613**: PhD: Topics in deterministic & non-deterministic models
5. **ACTU 499**: Training Field Experience

9.7 Academic year 2018-2019 (Actuarial and Financial Mathematics Bachelor program)

9.7.1 Spring 2019

1. **ACTU 362**: Actuarial Mathematics I
2. **ACTU 364**: Lab. Actuarial Mathematics
3. **ACTU 462**: Actuarial Mathematics II
4. **ACTU 464**: Risk theory
5. **ACTU 499**: Training Field Experience

9.7.2 Fall 2018

1. **ACTU 362** Actuarial Mathematics I.
2. **ACTU 364**: Lab. Actuarial Mathematics
3. **ACTU 462**: Actuarial Mathematics II
4. **ACTU 464**: Risk theory
5. **ACTU 499**: Training Field Experience

9.8 Academic year 2017-2018 (Actuarial and Financial Mathematics Bachelor program)

9.8.1 Spring 2018

1. **ACTU 462**: Actuarial Mathematics II (Summer 2018)
2. **ACTU 362**: Actuarial Mathematics I
3. **ACTU 364**: Lab. Actuarial Mathematics
4. **ACTU 499**: Training Field Experience
5. **ACTU 462**: Actuarial Mathematics II

9.8.2 Fall 2017

1. **ACTU 468**: Quantitative Methods in Finance. (KSU-female's section)
2. **ACTU 468**: Quantitative Methods in Finance (KSU-male's section)
3. **MATH 380**: Stochastic Processes (KSU-female's section)
4. **MATH 380**: Stochastic Processes (KSU-male's section)
5. **CSC 202**: Preparation for SOA P Exam (KSU-male's section)
6. **ACTU 499**: Training Field Experience (KSU)

9.9 Academic year 2016-2017 (Actuarial and Financial Mathematics Bachelor program)

9.9.1 Spring 2017

1. **ACTU 499** Training Field Experience.
2. **CSC 202**: Preparation for SOA P Exam (KSU-male's section)
3. **ACTU 468**: Quantitative Methods in Finance (KSU-female's section)
4. **ACTU 468**: Quantitative Methods in Finance (KSU-male's section)
5. **MATH 380**: Stochastic Processes (KSU-male's section)
6. **MATH 380**: Stochastic Processes (KSU-female's section))

9.9.2 Fall 2016

1. **ACTU 468**: Quantitative Methods in Finance (KSU-male's section)
2. **ACTU 468**: Quantitative Methods in Finance (KSU-female's section)
3. **MATH 380**: Stochastic Processes (KSU-male's section)
4. **MATH 380**: Stochastic Processes (KSU-female's section)

9.10 Academic year 2015-2016 (Actuarial and Financial Engineering program & Master program)

9.10.1 Spring 2016

1. **ACTU 461**: Financial Mathematics (2) (KSU-female's section)
2. **ACTU 461**: Financial Mathematics (2) (KSU-male's section)
3. Discrete time models in finance (UCA)
4. Continuous time models in finance (UCA)
5. Financial Mathematics (Master, level II) (UCA)

9.10.2 Fall 2015

1. Discrete time models in finance (UCA)
2. Continuous time models in finance (UCA)
3. Financial Mathematics (Master, level I) (UCA)

9.11 Academic year 2014-2015 (Actuarial and Financial Engineering program & Master program)

1. Quantitative Methods in Finance (Spring 2015) (UCA)
2. Discrete time models in finance (Fall 2014) (UCA)
3. Continuous time models in finance (Fall 2014) (UCA)
4. Financial Mathematics (Master level I & II) (Fall and Spring 2014-2015) (UCA)

9.12 Academic year 2013-2014 (Actuarial and Financial Engineering program)

1. Quantitative Methods in Finance (Spring 2014) (UCA)
2. Discrete time models in finance (Fall 2013) (UCA)
3. Continuous time models in finance (Fall 2013) (UCA)

9.13 Academic year 2012-2013 (Actuarial and Financial Engineering program)

1. Quantitative Methods in Finance (Spring 2013) (UCA)
2. Discrete time models in finance (Fall 2012) (UCA)
3. Continuous time models in finance (Fall 2012) (UCA)

9.14 Academic year 2011-2012 (Actuarial and Financial Engineering program & Master program)

1. Quantitative Methods in Finance (Spring 2012) (UCA)
2. Discrete time models in finance (Fall 2011) (UCA)
3. Continuous time models in finance (Fall 2011) (UCA)
4. Financial Mathematics (Master level I & II) (Fall and Spring 2011-2012) (UCA)

9.15 Academic year 2010-2011 (Actuarial and Financial Engineering program & Master program)

1. Quantitative Methods in Finance (Spring 2011) (UCA)
2. Discrete time models in finance (Fall 2010) (UCA)
3. Continuous time models in finance (Fall 2010) (UCA)
4. Financial Mathematics (Master level I & II) (Fall and Spring 2010-2011) (UCA)

9.16 Academic year 2009-2010 (Under graduate program)

1. Probability and Statistics (Spring 2010) (UCA)
2. Quantitative Methods in Finance (Spring 2010) (UCA)
3. Calculus II (Analysis II: Fall 2009) (UCA)

9.17 Academic year 2008-2009 (Under graduate program)

1. Probability and Statistics (Spring 2009) (UCA)
2. Differential Equations (Spring 2009) (UCA)
3. Calculus II (Analysis II: Fall 2008) (UCA)
4. Linear Algebra (Fall 2008) (UCA)