

Franck ADÉKAMBI

School of Economics

University of Johannesburg, South Africa

Email: fadekambi@uj.ac.za

Tel: 0027-83-779-2398

Citizenship: Canada

EDUCATION

| | |
|--|----------|
| Certificate in Project Management | 04/ 2010 |
| Clayton State University (United States of America) | |
| Ph.D, Actuarial Science | 01/ 2011 |
| École d'actuariat, Université Laval, Québec (Canada) | |
| <i>Research fields:</i> Risk Theory, Financial Mathematics | |
| Master of Science in Statistics | 12/ 2004 |
| École Nationale de la Statistique et de l'Administration Économique (ENSAE) European leading school in applied economic, Paris (France). | |
| <i>Research fields:</i> Statistics-Economic. | |
| Master of science in Finance | 10/ 2003 |
| Institut des Sciences Financières et d'Assurances (ISFA), Lyon (France). | |
| <i>Research fields:</i> Actuarial science | |

PROFESSIONAL EXPERIENCE

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| University of Johannesburg, South Africa | 08/2017-present |
| <u>Current Position:</u> Associate Professor, | |
| NRF Rating: C3 | 01/2020-01/2025 |
| <u>Twas-Unesco</u> Associaship | 08/2020-08//2023 |
| <u>Senior Lecturer:</u> | |
| | 04/2014-07/2017 |
| University of the Witwatersrand, South Africa | 06/ 2011-03/ 2014 |
| <u>Past position:</u> Lecturer | |

Emory University, Atlanta: Georgia

01/ 2010 – 06/ 2011

Past position: **Research with Prof Stephen Clark**

Altia, Actuarial Consulting Company

05/ 2008 – 12/ 2009

Position:

- Audit of provisions and pricing,
- Embedded Value, Solvency 2, business plan,
- Audit and followed by retirement regimes,
- Preparation of seminars,
- Stochastics models for reserving in Non-Life Insurance,
- Implementation of Bootstrap, GLM models for reserving in Non-Life Insurance.

École d'actuariat

09/ 2005 – 06/ 2008

Position: **Research Assistant**

- Risk theory, Ruin Probabilities, Compound Distributions, Reinsurance, Derivatives Securities.

Position: **Teaching Assistant**

- Teaching Assistant: Risk Theory

Fortis Securities France

07 – 11/ 2004

Past position: **Research Assistant**

- Modelling and Prediction of American and European short- and long-term interest rates.

CDC IXIS Capital Market

10/ 2003 – 06/ 2004

Past position: **Research Assistant**

- Copula, Structures of dependency between factors of market.

Institut des Sciences Financières et d'assurance

04 – 08/ 2003

Past position: **Research Assistant**

- Profit Testing.

SKILLS

Quantitative

- Statistics, Actuarial Sciences, Finance

Teaching and training workshops

- Professionalization of Teaching and Learning in Science
- University Induction Program
- Faculty Induction Program
- Giving Research Students Feedback on their Writing
- Writing Winning Funding Proposals

RESEARCH GRANT

- 2020 TWAS UNESCO ASSOCIASHIP
- 2018 SIMONS TRAVEL GRANT, 5,000 US DOLLARS (INTERNATIONAL MATHEMATICAL UNION)
- 2015 ABEL TRAVEL GRANT, 5,000 US DOLLARS (INTERNATIONAL MATHEMATICAL UNION)
- **2013 and 2014 DAAD GRANT, German Academic exchange grant.**
- **2012 World Bank travel Grant** to attend both the 8th World Congress in Probability and Statistics, held in Istanbul, 9-14 July 2012 and of Pre-world congress Meeting of Young Researchers in Probability and Statistics 6-8 July 2012.
- **2012 French Embassy Research Grant**
- **2011 Start-up Grant**, University of the Witwatersrand
- **2011 Travel Grant** of 500 US dollars to attend Asia Pacific Risk and Insurance Association Annual Meeting.

AWARDS

- 2006 BOURSE DE RECRUTEMENT DE LA FINANCIERE BANQUE NATIONALE
- 2006-2009 NSERC SCHOLARSHIP FOR PHD STUDENTS
- 2005 BOURSE D'ADMISSION AU DOCTORAT

STUDENTS SUPERVISION

- PhD's Students
 1. Kokou Essiomle (Completed, 2021)
 2. Essodina Takouda (Completed, 2021)
 3. Ramdan Ntare (Ongoing)

4. Komla Atakpa (Ongoing)
 5. Peace Shipalane (Developing his proposal, will register next year)
- Master's Students
 1. Jobo Jongikhaya (Completed, 2021)
 2. Felicia Mashimbye (Completed, 2020)
 3. Peace Shipalane (Completed, 2019)
 4. Beatrice Simo-Kengne (Completed, 2018)
 5. Leon Mishindo (Completed, 2017)
 6. Dirk Breedt (Completed, 2017)
 7. Simba Dizwa (will complete in 2017)
 8. Serge Angaman (Completed, 2017)
 - Honors Students
 1. Patrick Mthisi (Completed, 2013)
 2. Shishi Khanyisile (completed, 2016)

RESEARCH PAPERS

Published

2022

1. F, Adékambi., E, Takouda. (2022). On the Discounted Penalty Function in a Perturbed Erlang Renewal Risk Model With Dependence. Methodol Comput Appl Probab (2022). <https://doi.org/10.1007/s11009-022-09944-3>

2021

2. F, Adékambi., K, Essiomle. (2021). Asymptotic tail probability of the discounted aggregate claims under homogenous, non-homogenous and mixed Poisson risk model, **Risks** (2021), 8 (1), 30.
3. E, Takouda., F, Adékambi. Ruin probability in the delay Poisson risk model perturbed by diffusion process, **Risk and Decision Analysis**, vol. 8, 127-144, 2021.

2020

4. F, Adékambi., E, Takouda. Gerber-Shiu function in a class of delayed and perturbed risk model with dependence, **Risks** (2020), 8 (1), 30.

5. F, Adékambi., K, Essiomle. Ruin probability for stochastic flows of Financial Contract under phase-type distribution, **Risks** (2020), 8 (2), 53.
6. F, Adékambi. The construction of a quadratic predictor of the discounted renewal claims with dependence, **Risk and Decision Analysis**, vol. 8, no. 1-2, pp. 25-37, 2020.
7. F, Adékambi, M. Christiansen. (2020). Probability distribution of multi-states models in health insurance under semi-Markovian assumptions, **Markov Processes and Related Fields**, 26, 1-19.
8. Adékambi F. (2020) Modeling a Random Cash Flow of an Asset with a Semi-Markovian Model. In: Adjallah K., Birregah B., Abanda H. (eds) Data-Driven Modeling for Sustainable Engineering. ICEASSM 2017. Lecture Notes in Networks and Systems, vol 72. Springer, Cham. https://doi.org/10.1007/978-3-030-13697-0_8.

2019

9. F, Adékambi. Moments of Phase-type Aging Modeling for Health Dependent Costs, **Advances in Decision Analysis** (2019), 23(2).
10. F, Marri, F, Adékambi. (2019). On the moments of the aggregate discounted claims with dependence between inter-arrival times, **Markov Processes and Related Fields**, 25, 149-169.

2018

11. F, Marri, F, Adékambi, K, Moutanabbir, M. Moments of Compound Renewal Sums with Dependent Risks Using Mixing Exponential Models, **Risks** (2018), 6(3), 86.
12. F, Adékambi. (2018). Linear predictor of the discounted renewal aggregate claims with dependent inter-occurrence times. **South African Actuarial Journal** 18, 17-39.

2017

13. Adékambi, F, Christiensen, M. (2017). Integral and differential equations for the moments of multistate models in health insurance, **Scandinavian Actuarial Journal**, 1, 29-50.

14. Adékambi, F. (2017). Second moment of the discounted renewal cash flows with dependence: A Farlie-Gumbel-Morgenstern Copula approach. South African Statistical Association 2017, Proceedings.

2016

15. Adékambi, F, S, Dziwa. (2016). Moment of the discounted renewal cash flows with dependence: The use of Farlie-Gumbel-Morgenstern Copula. South African Statistical Association 2016, Proceedings.

2015

16. Adékambi, F, Mwamba, J. (2015). ASYMPTOTIC TAIL PROBABILITY FOR THE DISCOUNTED AGGREGATE SUMS IN A TIME DEPENDENT RENEWAL RISK MODEL, South African Statist. J. (2015) 49, 2, 205 – 222.
17. Adékambi, F. (2015). Reserves in the Multistate Health Insurance Model with Stochastic Interest of Diffusion Type. South African Actuarial Journal 15, 110-129.
18. Adékambi, F. (2015). ON APPROXIMATING THE DISTRIBUTION OF THE AGGREGATE AMOUNT OF BENEFIT. South African Statistical Association 2015, Proceedings.

2013

19. Adékambi, F., Mamane, S. (2013). Health care insurance pricing Using Alternative Renewal Process. Asia Pacific Journal of Risk and Insurance, 7, 1–14.
20. Franck Adékambi, (2013). Ruin Probability in Health Care Insurance Pricing with Constant force of Interest. Asia Pacific Journal of Risk and Insurance, 7, 143–162.
21. Adékambi, F, Mamane, S. (2013). A Stochastic Model for the Net Present Value of aggregate Costs of Equipment Failures. South African Statistical Association 2013, Proceedings.

2012

22. Léveillé, G. and F. Adékambi (2012). Joint moments of discounted compound renewal sums. Scandinavian Actuarial Journal, 1, 40–55.

2011

23. L veill , G. and F. Ad kambi (2011): "Covariance of discounted compound renewal sums with a stochastic interest rate," *Scandinavian Actuarial Journal*, 2, 138–153. (ISI Journal).
24. Franck Ad kambi, (2011). Health care insurance pricing with stochastic force of interest, *Proceedings of the 40th ASTIN Colloquium 2011 Madrid*.* <http://www.actuaries.org/ASTIN/Colloquia/Madrid/Papers/Adekambi.pdf>.

2010

25. Ad kambi, F and G. L veill  (2010). "Discounted compound renewal sums with a stochastic force of interest", *ARCH Proceedings of the 45th Actuarial Research Conference*, Vancouver

Submitted for Publication

2021

1. Ad kambi, F. (2021). Conditional Asian Options Pricing with Harmonic Average. **Under review in Insurance: Mathematics and Economics** (Accredited Journal).
2. Ad kambi, F. (2021). Modelling interest rate volatility using Realized GARCH Approach: Application with Rand-US Dollars exchange rate. **Under review in International Journal of Financial Studies** (Accredited Journal).
3. Ad kambi, F, Essiomle, K. (2021). A note on the recursive joint Moments of the Discounted Compound Dependent Renewal Sums. **Under review in Journal of Applied Probability and Statistics** (Accredited Journal).
4. F, Ad kambi., E, Takouda (2021). On the discounted penalty function in a perturbed Erlang renewal risk model with dependence. Accepted for publication in **Methodology and Computing in Applied Probability**.

Research in Progress

1. Ad kambi, F (2021). Anamalous PDEs in Semi-Markov chains: Numerical solutions. (Target, ISI Journal).

CONFERENCES AND SEMINARS PARTICIPATION

Year 2021

1. Franck Adékambi. On the discounted penalty function in a perturbed Erlang renewal risk model with dependence, Virtual 24th International Congress on Insurance: Mathematics and Economics, Istanbul, July 05-09, 2021.

Year 2020

2. Franck Adékambi. Asymptotic tail probability of the discounted aggregate claims under homogenous, non-homogenous and mixed Poisson risk model, Astin 2020 Virtual Colloquium, Paris, May 11-15, 2020.

Year 2019

3. Franck Adékambi. Asymptotic tail probability of the discounted aggregate claims under homogenous, non-homogenous and mixed Poisson risk model, South African Statistical Annual Conference, Port Elisabeth, November 27-29, 2019.

Year 2017

4. Franck Adékambi, (2017). Modelling a random cash flow of an asset with a semi-Markovian model, accepted for presentation at The 1st International Conference on Engineering, Applied Sciences and System Modeling (ICEASSM) will be held on 18th-21st April 2017 in Accra, the capital of Ghana.
5. Franck Adékambi, (2017). Aging modeling for health dependent cost with stochastic interest rate, accepted for presentation at the 6th International Conference Mathematics in Finance, Istanbul, August 08-12-2017.

Year 2016

6. Franck Adékambi, (2016). Semi-Markovian models in health insurance with Markovian interest rate, presentation at the 3rd European Actuarial Journal Conference, Lyon-France, September 05-08, 2016.

Year 2012

7. Franck Adékambi, (2012). Ruin Probability in Health Care Insurance Pricing with Constant force of Interest, accepted for presentation at the 8th World Congress in Probability and Statistics, Istanbul, July 06-14, 2012.
8. Adékambi, F., Mamane, S. (2012). Health Care Insurance Pricing, presentation at the 40th Annual Meeting of the Statistical Society of Canada, June 3-6, 2012 at the University of Guelph, Guelph, ON.
9. Adékambi, F., Mamane, S. (2012). Health Care Insurance Pricing Using Quasi-Renewal Process, Presentation at the 54th Annual Conference of the South African Statistical Association 5 - 9 November, 2012, Nelson Mandela Metropolitan University, Port Elisabeth.
10. Franck Adékambi, (2012). Waiting-Time For A Large Gap In A Quasi-Renewal Process, presentation at the ESSEC - SWISS LIFE conference on the theme of longevity and its consequences on insurance losses, November 19, 2012 at ESSEC Business School, Paris, France. (*Invited Speaker*).
11. September 2012, Seminar presentation at Stellenbosch University, South Africa.
12. October 2012, Seminar presentation at University of Cape Town, South Africa.
13. November 2012, Seminar presentation at Institute of Mathematics, University of Wrocław, Poland.

Year 2011

14. Adékambi, F, Mamane, S. (2011). Health care insurance pricing when the healthy and sick periods form an alternating renewal process with constant force of interest, Proceedings of the 15th Asia Pacific Risk and Insurance Association Annual Conference, 2011 Tokyo.*
15. Franck Adékambi, (2011). Health care insurance pricing with stochastic force of interest, presentation at the 53rd Annual Conference of the South African Statistical Association 31 October - 4 November, 2011. CSIR International Convention Centre, Pretoria.*

COLLABORATORS

| | | |
|----------------------------|--|--|
| Prof Marcus Christiansen | School of Mathematical & Computer Sciences; Actuarial Mathematics and Statistics | Heriot-Watt University- UK |
| Dr Khouzeima Noutannabbir | Department of Finance and Investment Management | University of Johannesburg- South Africa |
| Prof Jan Dhaene | Faculty of Economics and Business | KU Leuven -Belgium |
| Dr Barbara Jasiulis-Gołdyn | Mathematical Institute | University of Wrocław-Poland |
| Prof Renhuan Feng | Department of Mathematics | University of Illinois at Urbana Champaign |

MEMBERSHIP

- Member of the South African Statistical Association
- Member of the Asian Pacific Risk and Insurance Association
- Member of the Bernoulli Society
- Member of the Canadian Statistical Association
- I am a member of the Association Actuarial Science for Africa sponsored by the International Actuarial Organization. This Association aims to help young people in developing countries in West Africa to gain the access to this future-orientated education by establishing a professional actuarial education program in the area of “Conférence Interafricaine des Marchés d'Assurance (CIMA)” in Benin.
- I am invited to give a seminar in Non-Life Insurance as well as in Life Insurance twice a year.

REFERENCES

| | | |
|-------------------------|--|----------------------------|
| Professor Marie Kratz | kratz@essec.edu | (33) 1 34 43 30 00 |
| Professor Stephen Clark | saclar3@emory.edu | (1) 404 727 6645 |
| Prof Enkelejd Hashorva | Enkelejd.Hashorva@unil.ch | (1) 514 848 2424 Ext. 3252 |

