Brahim Brahimi

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PERSONEL

Birth date: March 31, 1978 (Biskra, Algeria) Married, 3 children.

LANGAGE

Arab, French, English.

EDUCATION

1. Ph.D. in Mathematical Statistics, 2011. University Med. Khider Biskra, Algeria. Supervisor: Professor Necir Abdelhakim. Ph. D, Thesis: Statistics of bivariate extreme values.
2. Master in Probability, Statistics and Optimizations, 2003. University University Badji Mokhtar, Annaba, Algeria.
3. ASD. Advanced Studies Diploma, in Probability, Statistics and Optimizations, 2001. University University Badji Mokhtar, Annaba, Algeria.
4. HED in Mathematics. University Med. Khider Biskra, Algeria.

PROFESSIONAL EXPERIENCE

1. Assistant : Department of Mathematics, University Med. Khider Biskra, Algeria, 2006-2011.
2. Assistant Professor : Department of Mathematics, University Med. Khider Biskra, Algeria, 2011-2012.
3. Associate Professor : Department of Mathematics, University Med. KhideBiskra, Algeria, 2012-June 2017.
4. Full Professor : Department of Mathematics, University Med. Khider Biskra, Algeria, January, 2017-present.

RESEARCH INTERESTS

1. Nonparametric statistics
2. Statistical inference for incomplete data: censoring and truncation
3. Rare events and applications to Finance and Insurance
4. Extreme Value Theory and actuarial risk measures
5. Copula Modeling and multivariate statistics

PUBLICATIONS

1. **Hawas, N., Brahimi, B; Necir, A.** Estimating the second-order parameter of regular variation and bias reduction in tail index estimation under random

truncation. Journal of Statistical Theory and Practice (2019) 13:7 https://doi.org/10.1007/s42519-018-0017-4

2. **Brahimi, Brahim**; **Benatia, Fatah**; **Yahia, Djabrane**. Copula conditional tail expectation for multivariate financial risks. *Arab J. Math. Sci.* **24** (2018), no. 1, 82-100.
3. **Betteka, Samah**; **Brahimi, Brahim.** Optimal number of upper order statistics used in estimation for the coefficient of tail dependence. *Afr. Stat.* **12** (2017), no. 1, 1171--1184.
4. **Haouas, Nawel**; **Necir, Abdelhakim**; **Meraghni, Djamel**; **Brahimi, Brahim**. A Lynden-Bell integral estimator for the tail index of right-truncated data with a random threshold. *Afr. Stat.* **12** (2017).
5. **Brahimi, B., Meraghni, D., Necir, A.** Nelson-Aalen tail product-limit process and extreme value index estimation under random censorship, (2017). (submitted). Available in ArXiv: https://arxiv.org/abs/1502.03955
6. **Brahimi, Brahim**; **Abdelli, Jihane**. Estimating the distortion parameter of the proportional hazards premium for heavy-tailed losses under Lévy-stable regime.*Insurance Math. Econom.* 70 (2016), 135--143
7. **Brahimi, Brahim**; **Kenioua, Zoubir**. Robust estimator of distortion risk premiums for heavy-tailed losses. *Afr. Stat.* **11** (2016), no. 1, 869--882.
8. **Brahimi, B.**; **Meraghni, D.**; **Necir, A.** Gaussian approximation to the extreme value index estimator of a heavy-tailed distribution under random censoring.*Math. Methods Statist.* **24** (2015), no. 4, 266--279.
9. **Brahimi, Brahim**; **Chebana, Fateh**; **Necir, Abdelhakim**. Copula representation of bivariate *L*-moments: a new estimation method for multiparameter two-dimensional copula models. *Statistics* **49** (2015), no. 3, 497--521.
10. **Sayah, Abdallah**; **Yahia, Djabrane**; **Brahimi, Brahim**. On robust tail index estimation under random censorship. *Afr. Stat.* 9 (2014), 671--683.
11. **Brahimi, Brahim**; **Meraghni, Djamel**; **Necir, Abdelhakim**; **Yahia, Djabrane**. A bias-reduced estimator for the mean of a heavy-tailed distribution with an infinite second moment. *J. Statist. Plann. Inference* **143** (2013), no. 6, 1064--1081.
12. **Brahimi, Brahim**; **Necir, Abdelhakim**. A semiparametric estimation of copula models based on the method of moments. *Stat. Methodol.* **9** (2012), no. 4, 467--477.
13. **Brahimi, Brahim**; **Meraghni, Djamel**; **Necir, Abdelhakim**; **Touba, Sonia**. Bias-reduced estimation of Wang's two-sided deviation risk measure under Lévy-stable regime. *Afr. Stat.* 7 (2012), 441--458.
14. **Brahimi, Brahim**; **Meddi, Fatima**; **Necir, Abdelhakim**. Bias-corrected estimation in distortion risk premiums for heavy-tailed losses. *Afr. Stat.* 7 (2012), 474--490.

15. **Benatia, Fateh**; **Brahimi, Brahim**; **Necir, Abdelhakim.** A semiparametric estimation procedure for multi-parameter Archimedean copulas based on the L-moments method. *Afr. Stat.* **6** (2011), 335--345.
16. **Brahimi, Brahim**; **Meraghni, Djamel**; **Necir, Abdelhakim**; **Zitikis, Ričardas.** Estimating the distortion parameter of the proportional-hazard premium for heavy-tailed losses. *Insurance Math. Econom.* **49** (2011), no. 3, 325--334.
17. **Brahimi, Brahim**; **Meraghni, Djamel**; **Necir, Abdelhakim.** Distortion risk measures for sums of dependent losses. *Afr. Stat.* **5** (2010), 260--267.
18. **Necir, Abdelhakim**; **Brahimi, Brahim**; **Meraghni, Djamel.** Erratum to: `Statistical estimate of the proportional hazard premium of loss'. *Scand. Actuar. J.* (2010), no. 3, 246--247.
19. **Necir, Abdelhakim**; **Brahimi, Brahim**; Asymptotic distributions of linear and non-linear combinations of extreme order statistics, Courier du savoir. (2003), no. 3, 3-15.

WORKING PAPERS

1. **Brahimi, B. (with Necir, A., Meraghni, D**.). Nelson-Aalen tail product-limit process and extreme value index estimation under random censorship, 2017. (submitted). Available in ArXiv: https://arxiv.org/abs/1502.03955
2. **Brahimi, B. (with Abdelli, J).** On the tail index estimation for right-censored Pareto-type distributions
3. **Brahimi, B. (with Abdelli, J).** Empirical likelihood for copula moment based estimation method.
4. **Brahimi, B.** Moment estimation method for multii-parametre copula models given censored data.
5. **Brahimi, B.** Estimating the first and second order parameters of a heavy-tailed distribution under random censoring.
6. **Brahimi, B.** Heavy tail index estimator for small simple right-censored Pareto-type distribution.

JOURNAL REFERING

Afrika Statistika, Computational Statistics And Data Analysis.

TEACHING EXPERIENCE

University of Biskra, Algeria (2006-2017):

Fundamental Mathematics,
Algebra,
R-Simulatio,
Descriptive statistics,
TP Matlab for Physics,
Integral calculation.

SERVICES

1. Member of the scientific committee: department of Mathematics Biskra, Algeria: 2010-2016.
2. Chairman of Department of Mathematics, University Med. Khider Biskra, Algeria, 2016-present.

3. Member of Scientific Committee: Faculty of Science University of Biskra Algeria: 2010-present.
4. Member of the organization committee: 2nd Workshop in Probability and Stochastic Analysis, Biskra, December, 2006.
5. Member of the organization committee of the Second edition of the Days of Theoretical and Applied Statistics Biskra, April 21-22, 2007.
6. Member of Scientific Committee of: Second edition of the Days of Theoretical and Applied Statistics, Biskra, April 21-22, 2007.
7. Member of the organization committee of the International workshop of multivariate analysis and copulas, Biskra, April 14-17, 2010.
8. Member of Scientific committee of the University of Biskra (2016-present).

ACADEMIC ACTIVITIES

1. Chairman of Department of Mathematics, University Med. Khider Biskra, Algeria, 2016-present.
2. Responsible of Mathematical Branch, Biskra, 2013-2018.

PH. D. THESIS SUPERVISION

1. Kenioua Zoubir: Mesures de risques et ses applications. *Biskra*, 2017.
2. Batteka Sameh: *Statistics for extreme bivariat* . *Biskra*, 2017.

CONFERENCES ANTTENDANCE

1. 2008. Vth International Workshop on Probability and Stochastic Analysis, December 17-18, Université Mohamed Khider Biskra, Algérie, Contribution: Distorted Risk Premium of Sums of Dependent Risks.
2. 2009. 1er Séminaire Trimestriel de Statistique, January 15, Université Mohamed Khider Biskra, Algérie, Contribution: Distorted Risk Premium of Sums of Dependent Risks: The copula approach.
3. 2009. 2éme Séminaire Trimestriel de Statistique, April 13, Université Mohamed Khider Biskra, Algérie, Contribution: Estimating Distorted Risk Measures of Sums of Dependent Risks.
4. 2009. Workshop Actuariat et Mathématiques Financières, 02 Mai, Université Abderahmane Mira, Béjaia, Algérie, Contribution: Estimating Distorted Risk Measures of Additive Risks.
5. 2009. WEDSTAT'09, 4-7 Mai, Université Mouloud Mammeri, Tizi-Ouzou, Algérie, Contribution: Empirical Estimation of A Coherent Risk Measure for Sums of Dependent Risks.
6. 2009. 3éme Séminaire Trimestriel de Statistique, December 16, Université Mohamed Khider Biskra, Algérie, Contribution: Multivariate Generalized Pareto Distribution: Caracterization and Estimation.
7. 2010. International Worksohp on Multivariate Risks and Copulas, April 12-15, Mohamed Khider University, Biskra, Algeria, Contribution: Dependence Structure via Copula: R software Simulation.
8. 2010. 1er Séminaire Trimestriel de Statistique, 10 Juin, Université Mohamed Khider Biskra, Algérie, Contribution: Conditional tail expectation for dependent risks: Copula approach.
9. 2010. 10th ISSH and the 5th ICWRE. July 5-7, Quebec City, Contribution:
    a. Distorted risk measures for sums of random variables: copula approach.
    b. Conditional tail expectation for dependent risks: application to hydrology.
    c. The Nested Logistic Model for flood frequency analysis.

10. 2010. Colloque International sur les Mathématiques Appliquées (CIMA'10), 07, 08 et 09 Novembre, Université de Guelma, Contribution: Bivariate L-moments: New estimation procedure for copula models.
11. 2010. 2ème Workshop du RASMA Statistique Spatiale et Applications, 29 Novembre au 4 Décembre, Université Gaston Berger (UGB) à Saint-Louis.
12. 2011. 1er Séminaire Trimestriel de Statistique, 6 Octobre, Université Mohamed Khider Biskra, Algérie, Contribution: Involving the copula function in conditional tail expectation.
13. 2011. International Conference on Stochastic Analysis and Applications, Hammamet, October 10 -15, Tunisia. Contribution: Involving the copula models in conditional value at risk for multivariate losses.
14. 2011. IMPROST. International Meeting on Probability and Statistics. November 20-22, Algiers, Algeria. Contribution: A semiparametric estimation of copula models based on the method of moments.
15. 2013. Method of moments in estimation of copula parameters. Workshop de Probabilités et Statistique. Université de Biskra.
16. 2014. A semi parametric estimation of copula models based on the method of moments, KMD-2014 International Mathematics Symposium.Türkiye.
17. 2014. Estimation procedure for Archimedian copula based on the trimmed L-moments method, KMD-2014 International Mathematics Symposium.Türkiye.
18. 2014. Estimating the distortion parameter of the proportional hazards premium for heavy-tailed losses under Lévy-stable regime. Journées de statistique. Université de Biskra.
19. ICRAPAM 2016 : 3rd Int. Conference on Recent Advances in Pure and Applied Mathematics, Bodrum, Mugla-Turkey, 19-23 May, 2016.
20. 2017 ICRAPAM 2017 : 4fourth Int. Conference on Recent Advances in Pure and Applied Mathematics, Izmir, Turkey, 11-15 May, 2017.

FUNDED PROJECTS

1. Statistics of the rare events and application to insurance January 1, 2005-Dec., 2007 University of Biskra.
2. Non parametric statistics of extreme value and application to finance January 1, 2007-Dec., 2010 University of Biskra.
3. Copule des valeurs extrêmes dépendantes et ces applications en finance et assurance January 1, 2014-present. University of Biskra.

VISITS

2008-2014. University Pierre & Marie Curie, Paris VI, France
June 2009. INRS-ETE, Québec, Canada.
January 2010. INRS-ETE, Québec, Canada.
January 2010. University Gaston Berger, Senegal.
December 2016-2017. University Cadi Ayad, Marrakech, Morocco.

PROGRAMMING LANGAGE

R-Softwar, S-plus, Matlab, Statistica, SPSS, Fortran.

Master

Nom et prénom du	Titredu mémoire	Date de soutenance
Bousbia Salim	Copule de Gumbel multi-paramètres	Juin 2013
Attia Fatima Zohra	Copule de Farlie-Gumbel-Morgenstern	Juin 2013
Hani Chahinez	Estimation par intervalle de confiance	Juin 2013
Driche Afaf	Test d'ajustement : Théorie et application	Juin 2014
Rahal Ahlem	Test de normalité : Simulation avec R	Juin 2014
Hamani Idriss	Estimation des paramètresdepremier et de second ordre d'une distribution à queue lourde	Juin 2015
Boulegroun Abdallah	Sur l'estimateur de Hill adapté aux données censurées	Juin 2015
Benbrahim Souad	Modélisation de dépendance entre plus de deux variables aléatoires	Juin 2015
Hachani Sabrina	Mesures d'association pour les modèles de	Juin 2015
Refafsa Hamza	Estimation de l'indice de queue	Juin 2015
Chanchouna Sara	Estimation par la méthode de maximum de vrai semblance	Juin 2016
Sekoub Fateh	La régression théorie et simulation	Juin 2016
Almi Nassima	Processus empirique de copule et pontBrownien	Juin 2016