

Houssou R. G DOSSA

PhD. Statistics

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<https://houssoudossa.github.io/>

Education

- 2023 (expected) **Ph.D. in Mathematics with a concentration in "Statistics", UQÀM, Montreal, CANADA.**
- 2012–2014 **Master's degree in Public Economics and Applied Statistics, Institute of Empirical Research in Political Economy, IERPE, Benin.**
- 2008–2011 **Bachelor's degree in Economics, University of Abomey-Calavi, UAC, Benin.**

Research Interests

- Genetic Statistics Studies of genetic variants
- General Statistics Random effects models and mixed models, Linear models, Logistic regression, Multivariate analysis, Biostatistics, Applied Statistics.

Professional Experience

- January-May 2022 **Lecturer: Introduction to Quantitative Methods in Management, UQÀM, Montreal, Canada.**
My role here was to develop students' basic knowledge, skills, and tools in mathematics, statistics, and computer science required for their program of study. Additionally, I aimed to demystify computers and foster an interest in quantitative methods. I also introduced students to electronic spreadsheets for basic mathematical language recall: algebraic expressions, functional expressions, set expressions, and graphical language, equation solving. I covered topics like graphic resolution of systems of equations and inequalities, simple and compound interests, and finally, I introduced the analysis and interpretation of mathematical and statistical data in management.
- September-December 2021 **Teaching Assistant: Introduction to Quantitative Methods in Management, UQÀM, Montreal, Canada.**
I performed various tasks as a teaching assistant, including assisting the instructor in preparing their lessons, helping students better understand the material, providing guidance on writing assignments, conducting monitoring sessions, supervising exams, and correcting exams and assignments.
- September-December 2021 **Teaching Assistant: Statistical Methods, UQÀM, Montreal, Canada.**
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- September-December 2020 **Teaching Assistant: Introduction to Quantitative Methods in Management, UQÀM, Montreal, Canada.**
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- September-December 2019 **Teaching Assistant: Statistical Methods, UQÀM, Montreal, Canada.**
I performed various tasks as a teaching assistant, including assisting the instructor in preparing their lessons, helping students better understand the material, providing guidance on writing assignments, conducting monitoring sessions, supervising exams, and correcting exams and assignments.

- May-June 2019 **Teaching Assistant: Statistical Methods, UQÀM, Montreal, Canada.**
As a teaching assistant, I performed a variety of tasks, including assisting the instructor in session preparation, helping students better understand the course material, guiding students in their assignments, providing tutoring, supervising exams, and grading exams and assignments.
- January-April 2019 **Teaching Assistant: Statistical Methods, UQÀM, Montreal, Canada.**
As a teaching assistant, I performed a variety of tasks, including assisting the instructor in session preparation, helping students better understand the course material, guiding students in their assignments, providing tutoring, supervising exams, and grading exams and assignments.
- May-June 2018 **Teaching Assistant: Statistics I, UQÀM, Montreal, Canada.**
As a teaching assistant, I performed a variety of tasks, including assisting the instructor in session preparation, helping students better understand the course material, guiding students in their assignments, providing tutoring, supervising exams, and grading exams and assignments.
- May-June 2017 **Teaching Assistant: Statistics I, UQÀM, Montreal, Canada.**
As a teaching assistant, I performed a variety of tasks, including assisting the instructor in session preparation, helping students better understand the course material, guiding students in their assignments, providing tutoring, supervising exams, and grading exams and assignments.
- November 2016 **Teaching Assistant: Introduction to Follow-up Study for Evaluating Entrepreneurial Status in Benin, African School of Economics (ASE), Benin.**
As a teaching assistant, I performed a variety of tasks, including assisting the instructor in session preparation, helping students better understand the steps for conducting a follow-up evaluation study on entrepreneurial status in Benin using "CAPI" (Computer-Assisted Personal Interviewing).
- June 2016 **Assistant Statistical Analyst, OBASS-Consulting, Burkina Faso.**
Tasks performed: Data cleaning (using Stata), Data analysis, Report writing.
- February-June 2016 **Deputy Coordinator, IREEP, Benin.**
Follow-up Study for Evaluating Entrepreneurial Status in Benin (Randomized Study with "CAPI", Endline) Tasks performed: Finalization of data collection tool, Update of field manuals, Supervision of CAPI interface design for data entry, Training and selection of surveyors and controllers, Coordination of pre-testing, Coordination of fieldwork, Report writing.
- June-July 2015 **Research Assistant, IREEP, Benin.**
Impact Study of the Large Infrastructure and Equipment Program on the Congolese Economy. Tasks performed: Data collection, Data analysis, Technical study of stormwater management on the Sainte Rita-Fifadji axis in the 8th district of Cotonou. Tasks performed: Designing the data entry template, Data cleaning (using Stata), Data analysis, Report writing.
- February-June 2015 **Consultant, IREEP, Benin.**
Follow-up Study for Evaluating Entrepreneurial Status in Benin (Randomized Study with "CAPI", follow-up). Tasks performed: Finalization of data collection tool, Update of field manuals, Preparation of training, Training and selection of surveyors and controllers, Coordination of pre-testing, Coordination of fieldwork, Report writing.
- August 2012-July 2014 **Research Assistant, IREEP, Benin.**
Tasks performed: Data manager, Designing data entry templates using Magpi, Data collection with Lenovo tablet on Magpi, Assistant Statistician: Baseline Study for Evaluating Entrepreneurial Status in Benin (Randomized Study, Baseline). Tasks performed: Sorting surveyors' applications, Preparation of training, Training and selection of surveyors and controllers, Coordination of pre-testing, Coordination of fieldwork.

Other Professional Activities

- March 2019 **Organization Committee Member, UQÀM, Montreal.**
Student Summit of Statistics in Montreal (SÉSÀM).
- Since 2019 **Membership, UQÀM, Canada.**
Member (students) of the Faculty Research Center in Statistics and Data Sciences (STATQAM).
- July 2017 - **Membership, UQÀM, Canada.**
- December 2021 **Graduate Cycle Program Committee Member.**

Awards

- 2021 **Recipient, CRM - UQÀM, Canada.**
Recipient of a graduate scholarship from the Statistics Laboratory of the Centre de Recherches Mathématiques (CRM).

Submitted or Finalized Articles

- 2023 **Houssou Dossa, Alexandre Bureau, Michel Maziade, Lajmi Lakhal-Chaieb and Karim Oualkacha. (2023),** *A Novel Rare Variants Association Test for Binary Traits in Family-Based Designs via Copulas*, (Under review).
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- 2023 **Houssou Dossa, Alexandre Bureau, Michel Maziade, Lajmi Lakhal-Chaieb and Karim Oualkacha. (2023),** *Generalized Functional Linear Mixed Models for Binary Traits in Family-Based Designs via Copulas*, (To be submitted).
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Presentations at Congresses and University Conferences

- June 2022 **Presentation, By Video Conference**, 49th Annual Congress of the Statistical Society of Canada. Generalized Functional Linear Mixed Models for Binary Traits in Family-Based Designs via Copulas.
- June 2021 **Presentation, By Video Conference**, 48th Annual Congress of the Statistical Society of Canada. A Novel Rare Variants Association Test for Binary Traits in Family-Based Designs via Copulas.
- February 2020 **Invited Presentation, Université Laval**, Montreal. A Novel Rare Variants Association Test for Binary Traits in Family-Based Designs via Copulas.
- December 2018 **Presentation, McGill**, Montreal. Group Variables Selection for Cox's Regression in High-Dimensional.
- August 2018 **Poster, BANFF (Alberta)**, Canada. Rare Variant Association Test for Binary Traits in Family-Based Designs via Copulas.

Participation in Workshops, Congresses, and Conferences

- July 2023 **Workshop, By Video Conference**, USA. National Institute of Statistical Sciences Writing Workshop for Junior Researchers.
- June 2022 **Conference, By Video Conference**, Canada. 49th Annual Congress of the Statistical Society of Canada.
- June 2021 **Conference, By Video Conference**, Canada. 48th Annual Congress of the Statistical Society of Canada.
- March 2019 **Conference, UQÀM**, Montreal, Canada. Student Summit of Statistics in Montreal (SÉSÀM).
- Winter 2019 **Seminar, UQÀM**, Montreal, Canada. Faculty Research Center STATQAM.
- Fall 2018 **Seminar, UQÀM**, Montreal, Canada. Faculty Research Center STATQAM.
- August 2018 **Workshop, BANFF**, Canada. New Statistical Methods for Family-Based Sequencing Studies.
- July 2018 **Workshop/Training, Quebec**, Canada. CRM 2018 Summer School: Genetic Statistics.
- July 2018 **Congress, Montreal**, Canada. R in Montreal.
- June 2018 **R Workshop, Montreal**, Canada. 46th Annual Congress of the Statistical Society of Canada.
- June 2018 **Conference, Montreal**, Canada. 46th Annual Congress of the Statistical Society of Canada.
- Winter 2018 **Seminar, UQÀM**, Montreal, Canada. Faculty Research Center STATQAM.
- Fall 2017 **Seminar, UQÀM**, Montreal, Canada. Faculty Research Center STATQAM.

Specific Skills

Programming Languages R, Python, Matlab.

Statistical Software SAS, Stata, SPSS.

Data Processing Data cleaning, preparation, visualization, data preprocessing, sampling techniques.

References

Co-director **Karim Oualkacha**, *Professeur*, UQÀM, oualkacha.karim@uqam.ca.
Tel. (1-514) 987-3000, poste 522, Fax : (1-514) 987-8935

Co-director **Lajmi Lakhal-Chaieb**, *Professeur*, Université LAVAL, lakhali@mat.ulaval.ca.
Tel. (1-418) 656-2131 poste 2977, Fax : (1-418) 656-5902

Experiences - Interests

Languages French (fluent), English (speaking, reading, and writing).