Christophe A.N. **Biscio**

ASSOCIATE PROFESSOR · STATISTICIAN · DATA SCIENTIST

Aalborg University, Department of Mathematical Sciences
Skjernvej 4A 9220 Aalborg Øst - Denmark

☐ +45 25774067 | ✉ christophe@math.aau.dk | ☗ https://biscio.github.io/ | 🔗 Linkedin | 🎓 Google Scholar

Employment

Associate Professor, AALBORG UNIVERSITY, DENMARK *Since Oct. 2020*

Assistant Professor, AALBORG UNIVERSITY, DENMARK *Sept. 2016 - Sept. 2020*

Post doc, AALBORG UNIVERSITY, DENMARK *Sept. 2015 - Aug. 2016*

Research

Research Interests: Topological Data Analysis, Mathematical Statistics, Determinantal Point Processes, Asymptotic Theory, Spatial Point Processes, Spatial Statistics, Time series.

PhD co-supervisor Ninna Vihrs: Contribution to the statistical theory of point processes. Started in 2018.

Reviewer for various scientific journals, including some of the most prestigious journal in probability and statistics

- Computational Statistics and Data Analysis, Scandinavian Journal of Statistics, Journal of Multivariate Analysis, Applications of Mathematics, Statistical and Probability Letters, Biometrics, Applied Stochastic Models in Business and Industry, Biometrical Journal, Advances in Statistical Analysis.

International Network of Collaborators

- in various fields: mathematics, statistics, computer sciences, climate sciences, chemistry, and energy technology.
- across several countries: Belgium, Canada, Denmark, France, Czech Republic, Netherlands and Sweden.

Research stays (recent)

- 2019 – One week visiting Florent Bonneu, University of Avignon, France.
- 2019 – One week visiting Zbynek Pawlas, Charles University, Czech Republic.

Working papers

- Christophe A.N. Biscio, Lisbeth Fajstrup, Morten Smedskjær and Søren Sørensen. **Analysis of porosity of ZIF structures using topological data analysis.**
- Christophe A.N. Biscio and Anne Marie Svane. **A general central limit theorem for Ripley's K function.**
- Christophe A.N. Biscio and Ege Rubak. **Effective simulation algorithm for Determinantal point processes.**
- Christophe A.N. Biscio and Florent Bonneu. **Rates of convergence for statistical methods in spatial statistics.**
- Mayer Arnulf, Christophe A.N. Biscio, Justus Kaufmann and Ege Rubak. **Point processes methods in cancer detection.**

Education

PhD in Mathematical Statistics, UNIVERSITY OF NANTES, FRANCE *Sept. 2012 - Sept. 2015*
Subject: Contribution to the modelling and the parametric estimation of determinantal point processes.

Master's Degree in Mathematics, UNIVERSITY OF RENNES, FRANCE *2012*

Agregation of Mathematics, National French competitive exam for teaching in higher education. *2011*

Grants

2019 **Carlsberg Foundation**, 40,200 DKK, Conference on Data Science *Aalborg, Denmark*

Skills

Programming R, Shiny, Python, LaTeX

Languages French (Native), English (Upper-intermediate - Oral C1), Danish (B2 - Prøve i Dansk 3), Italian (Intermediate)

Project Supervision Numerous data analysis projects for Bachelor and Master students.

Organisation of Conferences

2021	**Organising Committee,** Set estimation: a bridge between Spatial Statistics and Stochastic Geometry	*Luminy, France*
2020	**Organising Committee,** Conference in Data Science (Cancelled due to Covid 19)	*Aalborg, Denmark*
2018	**Scientific and Organising Committee,** 12th Workshop on Spatial Statistics and Image Analysis in Biology	*Aalborg, Denmark*
2017	**Scientific and Organising Committee,** Points in Time and Space	*Aalborg, Denmark*

Administrative responsibilities

Since 2018	Arbejdsmiljørepræsentant (working environment representative) at department of mathematical sciences	*Aalborg, Denmark*
Since 2018	Coordinator of the 5th semester at the department of mathematical sciences	*Aalborg, Denmark*
2015	PhD student representative at the council of the Henri Lebesgue Center	*Rennes, France*
2013-2015	PhD student representative at the council of the Laboratory of Mathematics Jean Leray	*Nantes, France*

Talks

INVITED SPEAKER

2021	10th International Workshop on Applied Probability, IWAP 2021	*Thessaloniki, Greece*
2020	Stochastic Modelisation and Statistics Days	*Orléans, France*
2020	Workshop on determinantal point processes	*Grenoble, France*
2019	12th International Conference of the ERCIM WG on Computational and Methodological Statistics	*London, United Kingdom*
2019	Seminar of the department of Probability and Mathematical Statistics	*Prague, Czech Republic*
2019	Seminar of the department of Mathematics	*Avignon, France*
2018	40th Stochastic Processes and their Applications International Conference	*Göteborg, Sweden*
2018	9th International Workshop on Applied Probability	*Budapest, Hungary*
2016	Lecture on determinantal point processes at the Laboratory of Mathematics	*Lille, France*
2013-2015	7 talks at the seminars of the mathematical department of several French universities: Nantes, Lille, Rouen, Grenoble, Besançon	

CONTRIBUTED SPEAKER

2017	19th Workshop on Stochastic Geometry, Stereology and Image Analysis (SGSIA 2019)	*Luminy, France*
2016	Workshop on Geometry and Stochastic of Non-linear, Functional and Graph Data	*Bornholm, Denmark*
2016	Workshop on Spatial Statistics and Image Analysis in Biology (SSIAB11)	*Rennes, France*
2015	11th Workshop of the CSGB - Center for Stochastic Geometry and Advanced Bioimaging,	*Aarhus, Denmark*
2015	6th Meeting of the Young Statistician of the SFdS (French statistical society)	*Bordeaux, France*
2015	4th Stochastic Geometry Days of the GdR GeoSto	*Poitiers, France*
2015	Spatial Statistics: Emerging Patterns	*Avignon, France*

Teaching

Since 2018	**Lecturer,** PhD course Design and Analysis of Experiments	*Aalborg, Denmark*
2018	**Supervisor,** Master's Thesis: Inference for high dimensional data	*Aalborg, Denmark*
Since 2017	**Lecturer,** Probability for 4th semester students	*Aalborg, Denmark*
Since 2016	**Supervisor,** Numerous projects in statistics and data science on times series, statistical modelling, control theory, neural networks and geostatistics for both undergraduate and graduate students	*Aalborg, Denmark*
Since 2018	**Lecturer,** Mathematics for 2nd semester students in economy	*Aalborg, Denmark*
2015	**Teaching Assistant,** Data analysis and statistics for 2nd year students in business tutorials and practical works with SPSS	*Aalborg, Denmark*
2012-2015	**Teaching Assistant,** Various lectures in Statistics and Probability	*Nantes, France*