# Christophe A.N. **Biscio**

Associate Professor · Statistician · Data Scientist

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## Employments

**Associate Professor,** Aalborg University, Denmark *Since Oct. 2020*
- Continue on Assistant Professor tasks.

**Assistant Professor,** Aalborg University, Denmark *Sept. 2016 - Sept. 2020*
- Numerous student projects supervision
- Publications in top journals in mathematical statistics.

**Post doc,** Aalborg University, Denmark *Sept. 2015 - Aug. 2016*
- Topological Data Analysis uses in Spatial Statistics

## Research

**Research Interests** in mathematics and statistics
- 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.

**Recent research stays**
- 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 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

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

## Skills

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| **Programming** | R, Shiny, Python, LaTeX |
| **Languages** | French (Native), English (Upper-intermediate - Oral C1), Danish (B2 - Prøve i Dansk 3), Italian (moderate) |
| **Project Supervision** | Numerous data analysis projects for Bachelor and Master students. |

# Organisation of Conferences

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|---|---|---|
| 2021 | **Organising Committee,** Set estimation: a bridge between Spatial Statistics and Stochastic Geometry | *Luminy, France* |
| 2020 | **Organising Committee,** Conference in Data Science | *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

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| 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 students representative at the council of the Henri Lebesgue Center | *Rennes, France* |
| 2013-2015 | PhD students 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

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| 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

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| Since 2018 | **Lecturer,** PhD course Design and Analysis of Experiments | *Aalborg, Denmark* |
| 2018 | **Supervisor,** Master 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* |