# CURRICULUM VITAE
# GEIR DRAGE BERENTSEN

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| Date of Birth | December 27, 1984 |
| Nationality | Norwegian |
| Current positions | Associate Professor, *Department of Business and Management Science, Norwegian School of Economics*, Norway |

## Research Interests

o   Time series & longitudinal data
o   Measures of dependence
o   Spatial models
o   Computational statistics
o   Applied statistics in operational research, social science, and finance

## Education

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| 2013 | **PhD in Statistics** at the *Department of Mathematics, University of Bergen*, Norway |
| | Topic of thesis: Local Gaussian correlation |

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| Reviewers: | Prof. Dr. M. L. Rizzo (Bowling Green) |
| | Prof. Dr. C. Czado (Munchen) |
| Supervisor: | Prof. Dr. D. Tjøstheim (Bergen) |

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| 2009 | **Master in Statistics at** the *Department of Mathematics, University of Bergen*, Norway |

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| Topic of the thesis: | Analysis of left-truncated data |
| Supervisor: | Prof. Dr. J. Paulsen (Bergen) |
| Grade: | A |
| Occupation Title: | Actuary |

## Professional Experience

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| 2020 - | **Associate Professor** - *Department of Business and Management Science, NHH,*    Norway |
| 2016 - 2019 | **Postdoc** - *Department of Mathematics, University of Bergen*, Norway |
| 2013 - 2016 | **Safety engineer** - industrial risk, *Safetec Nordic AS*, Bergen |
| 2009 - 2013 | **PhD Candidate** - *Department of Mathematics, University of Bergen,* Norway |
| 2005 - 2009 | **Teaching assistant**, part-time, *Department of Mathematics, University of Bergen*, Norway, Supervisor for seminars |
| 2004 - 2009 | **Fire officer**, *Egersund Firedepartment*, Egersund, Norway, part-time. |
| 2003 - 2004 | **Military service**, *Stormingeniør*, Norwegian Army |

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# Grants, Scholarships, and Awards

| | |
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| 2022 | "Inspirational Teaching Award", NHH. |
| 2022 | The bachelor students' lecturer award at NHH, "Bronsesvampen". |
| 2020 | The bachelor students' lecturer award at NHH, "Bronsesvampen". |
| 2020 | Centre for Research-Based Innovation 'Climate Futures', project number 309562 |
| 2019 | Finansmarkedsfondet, Statistical modelling and inference for (high-dimensional) financial data |
| 2017 | Statistician for a project in Developmental Cognitive Neuroscience funded by the *French National Research Agency* (Project ID: ANR-13-APPR-0010), France |
| 2009 | Travelling funding of PhD, *Norwegian Research Council*, grant no. 204321 |

# Peer-reviewed Publications

1. Bacri, Timothee Raphael Ferdinand**; Berentsen, Geir Drage**; Bulla, Jan; Støve, Bård (2023). 'Computational issues in parameter estimation for hidden Markov models with template model builder'. *Journal of Statistical Computation and Simulation* 93(18): 3421-3457 (NSD 1).

2. Azzolini, Francesca; **Berentsen, Geir Drage**; Skaug, Hans Julius; Hjelmborg, Jacob V.B.; Kaprio, Jaakko A. (2022). 'The heritability of BMI varies across the range of BMI—a heritability curve analysis in a twin cohort'. *International Journal of Obesity* 46: 1786-1791. (NSD 2)

3. Bacri, Timothee Raphael Ferdinand; **Berentsen, Geir Drage**; Bulla, Jan; Hølleland, Sondre Nedreås (2022). 'A gentle tutorial on accelerated parameter and confidence interval estimation for hidden Markov models using Template Model Builder'. *Biometrical Journal.* (NSD 1)

4. **Berentsen**, **Geir Drage**; Bulla, Jan; Maruotti, Antonello; Støve, Bård (2022). 'Modelling clusters of corporate defaults: Regime-switching models significantly reduce the contagion source'. *The Journal of the Royal Statistical Society, Series C (Applied Statistics)* 71(3): 1-698. (NSD 2, ABS 3)

5. Otneim, Håkon; **Berentsen, Geir Drage**; Tjøstheim, Dag Bjarne (2022). 'Local Lead–Lag Relationships and Nonlinear Granger Causality: An Empirical Analysis'. *Entropy* 24(3): 17. (NSD 1)

6. Sleire, Anders Daasvand; Støve, Bård; Otneim, Håkon; **Berentsen, Geir Drage**; Tjøstheim, Dag Bjarne; Haugen, Sverre Hauso (2021). 'Portfolio allocation under asymmetric dependence in asset returns using local Gaussian correlations'. *Finance Research Letters* 1-9. (NSD 1)

7. Mannseth, Janne; **Berentsen, Geir Drage**; Skaug, Hans Julius; Lie, Rolv T.; Moster, Dag (2021). 'Variation in use of Caesarean section in Norway: An application of spatio-temporal Gaussian random fields'. *Scandinavian Journal of Public Health*: 8. (NSD 1)

8. **Berentsen, Geir Drage**; Azzolini, Francesca; Skaug, Hans J.; Lie, Rolv T.; Gjessing, Håkon K. (2020). 'Heritability curves: A local measure of heritability in family models'. *Statistics in*

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*Medicine* 40(6): 1357-1382. (NSD 2),

9. **Berentsen, Geir Drage**; Cao, Ricardo; Francisco-Fernandez, Mario; Tjøstheim, Dag Bjarne (2016). 'Some properties of local Gaussian correlation and other nonlinear dependence measures'. *Journal of Time Series Analysis* 38(2): 352-380. (NSD 2, ABS 3)

10. **Berentsen, Geir Drage**; Støve, Bård; Tjøstheim, Dag Bjarne; Nordbø, Tommy Neverdahl (2014). 'Recognizing and visualizing copulas: An approach using local Gaussian approximation'. *Insurance, Mathematics & Economics* 57(1): 90-103. (NSD 1)

11. **Berentsen, Geir Drage**; Tjøstheim, Dag Bjarne (2014). 'Recognizing and visualizing departures from independence in bivariate data using local Gaussian correlation'. *Statistics and Computing* 24(5): 785-801. (NSD 2)

12. **Berentsen, Geir Drage**; Kleppe, Tore Selland; Tjøstheim, Dag Bjarne (2014). 'Introducing localgauss, an R package for estimating and visualizing local Gaussian correlation'. *Journal of Statistical Software* 56(12): 1-18. (NSD 1)

## Working papers

1. Li, Xuan; **Berentsen, Geir Drage**; Otneim, Håkon; Juranek, Steffen. 'Shareholder activism and the green transition', Submitted to *International Review of Economics and Finance.*

2. Hølleland, Sondre; **Berentsen, Geir Drage**; Otneim, Håkon; Solbrekke, Ida Marie. 'Optimal allocation of 30GW offshore wind power in the Norwegian Economic Zone', Submitted to *Wind Energy.*

3. Narum, Benjamin; **Berentsen, Geir Drage.** `Joint Forecasting of Salmon Lice and Treatment Interventions in Aquaculture Operations', Submitted to *Aquaculture.*

4. Hølleland, Sondre; **Berentsen, Geir Drage**; Otneim, Håkon; Fokianos, Konstantinos. 'Modern Portfolio Theory With Seasonal Assets', Submitted to *European Journal of Operational Research.*

## Other Publications

1. Fossan I., Sæbø A. O., Falck A., Garstad J. J., Hestad J.A., **Berentsen G.D.,** Wiklund J., Nilsen, M., 'Process leak for offshore installations frequency assessment model – PLOFAM' (2016) , Leak frequency model developed for Norwegian offshore-installations, www.Norskoljeoggass.no

2. Risikonivå i norsk petroleumsvirksomhet, land 2013 (2014), co-author, http://www.ptil.no/

3. Risikonivå i norsk petroleumsvirksomhet, land 2014 (2015), co-author, http://www.ptil.no/

4. Risikonivå i norsk petroleumsvirksomhet, offshore 2014 (2015), co-author, http://www.ptil.no/

## Teaching experience

Lecturer:

2019 - 2024    Lecturer  MET4, NHH

2019          Two Lectures and arrangement of workshop MAT12, NHH
2017          Lecturer in Elementary statistics (1st and 2nd year students)

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| 2017 | Substitute lecturer in Applied statistics (2$^{nd}$ year students) |
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| 2016 | Lecturer in Elementary statistics (1$^{st}$ and 2$^{nd}$ year students) |
| | *Department of Mathematics, University of Bergen* |

|  | Teaching assistant: |
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| 2005 - 2013 | Various topics in statistics, e.g. Elementary statistics (1$^{st}$ and 2$^{nd}$ year, Tutorial & Lab), Applied statistics (2$^{nd}$ year, Tutorial), Stochastic processes (3$^{th}$ – 5$^{th}$ year, Tutorial), Survival analysis (3$^{th}$ – 5$^{th}$ year, Tutorial), Life insurance (3$^{th}$ – 5$^{th}$ year, Tutorial), Financial risk (3$^{th}$ – 5$^{th}$ year, Tutorial & Lab), Finance theory (3$^{th}$ – 5$^{th}$ year, Tutorial), Generalized Linear Models (3$^{th}$ – 5$^{th}$ year, Tutorial & Lab), Nonlife-insurance (3$^{th}$ – 5$^{th}$ year, Tutorial). |
| | *Department of Mathematics, University of Bergen* |

## Supervision

I have supervised 16 master theses at NHH (28 students in total) and one master thesis at UiB.

Ph.D supervision:
Janne Mannseth, Co-supervisor (2016 - 2019), *Department of Mathematics, UiB*
Francesca Azzolini, Co-supervisor (2018 - 2022), *Department of Mathematics, UiB*
Timothée Bacri Ph.D, Co-supervisor (2019 – 2023), *Department of Mathematics, UiB*
Xuan Li, Main supervisor (2021 – 2024), *Department of Business and Management Science, NHH*
Benjamin Narum, Co-supervisor (2022 -2024), *Department of Business and Management Science, NHH*
Yue Shi, Co-supervisor (2020 - ), *Department of Business and Management Science, NHH*

## Reviewing and Editorial Activities

| 2020 | Reviewer in *Journal of Statistical Software* |
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| 2017 | Reviewer in *Frontiers in Behavioural Neuroscience* |
| 2017 - | Co-editor of *Tilfeldig Gang* (The newsletter of The Norwegian Statistical Association) |

## Conference talks

| 2022 | 'Implementation of the GAISE recommendations in an undergraduate Statistics Course', ØA-conference in Bodø. |
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| 2019 | 'Modelling clusters of corporate defaults: Regime-switching models significantly reduce the contagion source', 13$^{th}$ International Conference on Computational and Financial Econometrics, London. |
| 2017 | 'Pros and cons of Laplace approximations in mixed hidden Markov models', EcoSta 2017, Hong Kong University of Science and Technology, Hong Kong |
| 2012 | 'Recognizing and visualizing copulas using local Gaussian correlation', invited talk, Department of economics, Monash University, Melbourne |
| 2012 | 'Local Gaussian correlation in practice', 13th International Conference on Econometrics, Operations Research and Statistics, Famagusta Northern Cyprus |

## Dissemination

| 2023 | 'Klimaendringene gir dyrere forsikringer for alle', *Energi og Klima* |
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| 2023 | 'Bruker statistikk for å håndtere klimarisiko', NHH Bulletin, |
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## Service

| 2022 | Evaluation of a suggested revenue scheme for Norwegian counties on behalf of Møre and Romsdal fylkeskommune. |
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| 2020 - | Steering committee member and NHH lead for the SFI Climate Futures. |
| 2017 - 2019 | Member of work package 2 (Biostatistics support service) of the HRR Health registries for research (HRR) project, A national research infrastructure project funded by the Research Council of Norway. |
| 2016 - 2019 | Member of the *Statistical Consulting Unit* at the *Department of Mathematics* at the *University of Bergen* |
| 2016 - 2019 | Responsible for *Bergen biostatistical seminars* at the department of mathematics, University of Bergen |
| 2016 - | Board member, *The Norwegian Statistical Association* (NSF) - *Bergen* |
| 2016 - | Cashier, *Tørvikbygd og Ljones Grunneigarlag* |
| 2010 | Technical support, 23rd Nordic Conference on Mathematical Statistics Voss, Norway |

## Computing

o   Major operating systems: Windows, Unix/Linux
o   MS-Office, LaTeX
o   Programming languages: excellent knowledge of R and C++, good knowledge of Python and VBA

## Language Skills

| **Norwegian** | native speaker |
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| **English** | fluent (written and spoken) |
| **French** | basic knowledge |

### References will be provided upon request by

o   Assoc. Prof. Bård Støve (group leader statistics and collaborator) Department of Mathematics ,University of Bergen, Bard.Stove@uib.no, +47 41 64 59 14
o   Prof. Jan Bulla (collaborator), Department of Mathematics, University of Bergen, Jan.Bulla@uib.no, +47 55 58 28 75
o   Prof. Dag Bjarne Tjoestheim, emeriti at Department of Mathematics, University of Bergen, Dag.Tjostheim@math.uib.no

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