Curriculum vitae

PERSONAL INFORMATION

Family name, First name: Ziegel, Johanna

Name on publications: Ziegel, Johanna and Ziegel, Johanna F.

Researcher unique identifier: ORCID ID 0000-0002-5916-9746

Date of birth: 2 November 1981

Nationality: Swiss

Children: Sveva and Alessio, born 2014 and 2016

URL for website: `http://www.stat.unibe.ch/ziegel`

• EDUCATION

10.12.2009	Doctor of Sciences Department of Mathematics, ETH Zurich, Switzerland Supervisors: Eva B. Vedel Jensen (Aarhus University), Paul Embrechts (ETH Zurich)
26.04.2006	Diplom in Mathematics with Distinction Department of Mathematics, ETH Zurich, Switzerland

• CURRENT AND PREVIOUS POSITIONS

2023–	Full Professor of Applied Stochastics Institute of Mathematical Statistics and Actuarial Sciences (IMSV), University of Bern, Switzerland
2021–	Visiting Scientist Heidelberg Institute for Theoretical Studies, Heidelberg, Germany
2018–2022	Associate Professor of Applied Stochastics IMSV, University of Bern, Switzerland
2012–2018	Assistant Professor (tenure track) of Applied Stochastics IMSV, University of Bern, Switzerland
2011–2012	Post-doctoral Research Assistant Institute for Applied Mathematics, Heidelberg University, Germany
2010	Research Fellow Department of Mathematics and Statistics, The University of Melbourne, Australia
2004–2010	Scientific Assistant and Teaching Assistant Department of Mathematics, ETH Zurich, Switzerland

• INSTITUTIONAL RESPONSIBILITIES AT UNIVERSITY OF BERN

08.2021–	Director of IMSV
06.2021–	Representative of the Faculty of Science in the Collegium Generale
01.2021–	Founding member of Bern Data Science Initiative (BeDSI)
2019–2020	Board member, Competence Network Digitalization
02–07.2019	Acting head of Studies for Master's in Statistics
2018–	Head of program management, Advanced Studies in Statistical Data Science
2018–2021	Co-director of IMSV
2018–	Scientific advisory board member, Oeschger Centre for Climate Change Research (OCCR)
2017–	Member of several committees concerning appointments, promotions, habilitations, prizes in the Faculty of Natural Sciences
2016–2018	Faculty delegate for Mathematics and Computer Science
2015–2018	Organizer of the Bachelor's open days for the Department of Mathematics and Statistics

2014–2018 Organizer of the Science taster day for female high school students for the Department of Mathematics and Statistics
2013–2021 Organizer of the Institute Seminar of IMSV

• GRANTS

09.2021–08.2024 OCCR: Postdoc position "Statistics of compound events", Budget: CHF 369'600, 36 months, with Olivia Romppainen-Martius, Jakob Zscheischler
03.2021–02.2023 Federal Office of Meteorology and Climatology (MeteoSwiss): Postdoc position "Verification of Warnings", Budget: CHF 280'000, 24 months, with David Ginsbourger
01.2021–12.2023 MeteoSwiss and OCCR: Postdoc position "Ensemble post-processing of high-impact events", Budget: CHF 280'000, 24 months and CHF 117'600, 12 months, with David Ginsbourger, Olivia Romppainen-Martius
04.2020–08.2023 Swiss National Science Foundation (SNF), Project: Isotonic Prediction and Approximation, Budget: CHF 302'525, 40 months
10.2017–01.2020 SNF, Project: Reconsidering the role of loss functions, Budget: CHF 123'375, 28 months
08.2017–07.2018 University of Bern, Innovative teaching project: Peer assessment of exercises in the course "Statistics for natural sciences", Budget: CHF 33'000, 12 months
05.2014–03.2017 SNF, Project: Understanding elicitability, Budget: CHF 156'820, 35 months

• SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

4 Postdocs (Dr. Jonathan Koh Boon Han, since 09.2021; Dr. José Carlos Araujo Arcuna, since 03.2021; Dr. Sam Allen, since 01.2021; Dr. Alexander Jordan, 03.2018–06.2020), 5 PhD Students (Sebastian Arnold, since 01.2021; Alexander Henzi, 08.2019–06.2022; Anja Mühlemann, 02.2017–03.2021; Christof Strähl, 08.2014–09.2020, jointly with Prof. Lutz Dümbgen; Tobias Fissler, 09.2013–04.2017), 10 Master's Students (David Gilgen, since 06.2022; Valerie Haftka, since 10.2021; Luca Forgione, 2022; Sebastian Arnold, 2019; Belinda Tramonti, 2019; Alexander Henzi, 2018; Mara Trübner, 2015; Janine Kuratli, 2014; Christof Strähl, 2014; Marzio Vanina, 2014), IMSV, University of Bern, Switzerland

• TEACHING ACTIVITIES

2012– Lecturer – Prediction, Linear Models and Regression (I/II), Risk Measures, Multivariate Statistics, Measure Theory, Probability Theory, Combinatorics, Graphs & Games, Combinatorics and Probability, Statistics for Natural Sciences, Sampling Theory, Copulas, Statistical Forecasting, University of Bern, Switzerland
2011 Lecturer – Large Dimensional Random Matrices, Heidelberg University, Germany
2011–2012 Substitute Lecturer and Assistant – Analysis I/II, Heidelberg University, Germany
2010 Substitute Lecturer – Statistical Inference, The University of Melbourne, Australia
2004–2009 Substitute Lecturer and/or Teaching Assistant – various courses in mathematics and statistics at Bachelor's and Master's level, ETH Zurich, Switzerland

• REVIEWING ACTIVITIES

2023 Member of PhD Evaluation Committee, Université Claude Bernard Lyon 1, France
2023 Member of PhD Evaluation Committee, CWI Amsterdam, The Netherlands
2022–2023 Member of PhD Evaluation Committee, Carnegie Mellon University, U.S.A.
2022– Associate Editor of *International Journal of Forecasting*
2019– Associate Editor of *Journal of American Statistical Association, Theory & Methods*
2019– Associate Editor of *Bernoulli*
2021 Reviewer for PhD Thesis, Vienna University of Economics and Business, Austria
2020–2021 Associate Editor of *Mathematical Finance*
2017–2021 Associate Editor of *Statistics & Risk Modeling*
2018–2020 Associate Editor of *Electronic Journal of Statistics*

2016–2018 Associate Editor of *Journal of Multivariate Analysis*
2017– Reviewer for grant applications to the Swiss National Science Foundation, Deutsche Forschungsgemeinschaft, Netherlands Organisation for Scientific Research, French National Research Agency
2017 Reviewer for PhD Thesis, University of Milano-Bicocca, Italy
2013–2014 External expert in appointment committee for professorship (W1, tenure track), University of Osnabrück, Germany
2010– Reviewer for *Advances in Applied Mathematics, Advances in Applied Probability, ALEA, Annals of Applied Statistics, Annals of Statistics, Annals of the Institute of Statistical Mathematics, Applicable Analysis, Bernoulli, Biometrika, COLT 2019, Discrete & Computational Geometry, Electronic Journal of Statistics, European Journal of Finance, Finance and Stochastics, Geoscientific Model Development, Image Analysis & Stereology, International Journal of Forecasting, International Statistical Review, Journal of the American Statistical Association, Journal of Banking and Finance, Journal of Financial Econometrics, Journal of Mathematical Analysis and Applications, Journal of Microscopy, Journal of Multivariate Analysis, Journal of Risk, Journal of the Royal Statistical Society: Series B, Journal of Statistical Planning and Inference, Mathematica, Mathematics of Operations Research, Mathematische Nachrichten, Metrika, Operations Research, Quantitative Economics, Quaterly Journal of the Royal Metereological Society, Proceedings of the American Mathematical Society, Risks, Scandinavian Journal of Statistics, SIGMA, Springer Lecture Notes, Statistics & Risk Modeling, Test*

• CONTRIBUTIONS IN SCIENTIFIC SOCIETIES

2022– Elected member of the International Statistical Institute
2015–2019 Council member of the Bernoulli Society
2012– Member of the Swiss Mathematical Society
2008– Member of the Bernoulli Society and the Institute of Mathematical Statistics

• ORGANIZATION OF SCIENTIFIC MEETINGS

2023 Scientific Committee, “Insurance Data Science Conference”, 15-16 June 2023, Bayes Business School, City, University of London, U.K.
2023 Organizer of Birthday Colloquium for Lutz Dümbgen, 12 May 2023, Bern, Switzerland
2022 Organizer of Birthday Colloquium for Ilya Molchanov, 15 September 2022, Bern, Switzerland
2022 Scientific Committee, Bern Data Science Day 2022, Bern, Switzerland
2021 Organizer of first HiBeKi Meeting 2021, Bern, Switzerland
2021 Section on “Finance, insurance and risk: Statistics” at virtual German Probability & Statistics Days Mannheim 2021
2021 Invited Paper Session on “Hypothesis testing with e-values” at virtual 63nd ISI World Statistics Congress 2021
2021 Scientific Committee, Bern Data Science Day 2021, Bern, Switzerland
2021 Organizer of ISO-COW Workshop, online, 21-22 January 2021
2021 Session on “Forecasting, metrics, evaluations and scoring of extremes” at Extreme Value Analysis conference 2021, Edinburgh, U.K.
2021 Session on “Economics of Climate Risk” at 10th General AMaMeF conference 2021, Padova, Italy, jointly with Pauline Barrieu
2021 Scientific Committee, 10th General AMaMeF conference 2021, Padova, Italy
2020 Section on “Finance, Insurance and Risk: Statistics” at German Probability and Statistics Days 2020, Dresden, Germany
2019 Invited Paper Session on “Elicitability: Generalizations and their application” at 62nd ISI World Statistics Congress 2019, Kuala Lumpur, Malaysia
2015 Local Organizing Committee and Scientific Committee, Workshop for Young Scientists on “Elicitability, Propriety and Related Topics”, Bern, Switzerland
2012 International Organizing Committee, 18th European Young Statisticians Meeting, Croatia

• FELLOWSHIPS AND AWARDS

2022	Credit Suisse Award for Best Teaching, University of Bern
2022	International Statistical Institute Elected Member
2021–2022	Participant of H.I.T. Program: High Potential University Leaders Identity & Skills Training Program – Inclusive Leadership in Academia
2011	Best paper award, 17th European Young Statisticians Meeting, Lisbon, Portugal
2001–2006	Scholarships of the Max Weber-Program of the State of Bavaria, the German Academic Scholarship Foundation, the State of Bavaria for highly-gifted students

• CAREER BREAKS

01.02.2019–31.01.2022	Reduced workload of 90%, child care duties, 36 months
01.02.2017–31.01.2019	Reduced workload of 80%, child care duties, 24 months
01.10.2016–31.01.2017	Reduced workload of 40%, child care duties, 4 months
30.05.–16.09.2016	Maternity leave, 4 months
01.02.2015–30.09.2016	Reduced workload of 80%, child care duties, 20 months
01.10.2014–31.01.2015	Reduced workload of 60%, child care duties, 4 months
16.06.–03.10.2014	Maternity leave, 4 months

• PRESENTATIONS (2017–2022)

2023
- Mathematical Colloquium. Invited speaker: *Valid sequential inference on probability forecast performance*, 24 January 2023, University of Bremen, Germany.

2022
- INPUT research meeting. Invited speaker: *Valid sequential inference on probability forecast performance*, 16 December 2022, University of Bern, Switzerland.
- Euler Institute. Invited speaker: *Distributional (Single) Index Models*, 29 November 2022, USI, Lugano, Switzerland.
- Stochastics Meeting Lunteren 2022. Invited speaker, two talks: *Isotonic Distributional Regression*, *Sequential inference on forecast performance*, 7–9 November, 2022, Lunteren, The Netherlands.
- 42nd International Symposium on Forecasting. Keynote speaker: *Valid sequential inference on forecast performance*, 10–13 July 2022, Oxford, U.K.
- Fourteenth Annual SoFiE Conference. Keynote speaker: *Valid sequential inference on probability forecast performance*, 24–26 June 2022, Churchill College, University of Cambridge, U.K.
- Workshop "Safe, Anytime-Valid Inference (SAVI) and Game-theoretic Statistics". Invited talk: *Anytime-valid sequential testing for elicitable functionals via supermartingales*, 30 May – 3 June 2022, Eindhoven, The Netherlands.
- One World Actuarial Research Seminar, online. Invited talk: *Distributional (Single) Index Models*. 18 May 2022.
- LIKE22 Winter School and Workshop, online. Invited talk: *Kernel scores: A versatile class of proper scoring rules for evaluating probabilistic forecasts*, 10–14 January 2022, Bern, Switzerland.

2021
- Valpred 3 Workshop. Invited 3 day mini course: *Statistical Forecast Evaluation*, 4–7 October 2021, Aussois, France.
- Monash University online seminar. Invited talk: *Distributional (Single) Index Models*. 16 September 2021, Monash University, Melbourne, Australia.
- CWI Machine Learning Seminar. Invited talk: *Valid sequential inference on probability forecast performance*. 10 September 2021, CWI Amsterdam, The Netherlands.
- Joint Statistical Meetings. Invited talk: *Valid sequential inference on probability forecast performance*. 8–12 August 2021, American Statistical Association Virtual Meeting.
- Online Mathematics of Decision Making and Statistics Seminar. Invited talk: *Distributional (Single) Index Models*. 25 March 2021, Toulouse School of Economics, France.

2020 - Online Statistics Seminar. Invited talk: *Distributional (Single) Index Models.* 10 December 2020, KU Leuven, Belgium.

- Online Seminar Series in Actuarial Science and Financial Mathematics. Invited talk: *Distributional (Single) Index Models.* 23 October 2020, University of Waterloo, Canada.

2019 - 9th General AMaMeF Conference. Plenary lecture: *Robust forecast evaluation of expected shortfall.* 11–14 June 2019, Paris, France.

- Colloquium in Climatology, Climate Impact and Remote Sensing. Invited talk: *Isotonic Distributional Regression (IDR): A powerful nonparametric calibration technique.* 29 May 2019, University of Bern, Switzerland.
- Workshop: Predictability, dynamics and applications research using the TIGGE and S2S ensembles. Contributed presentation: *Isotonic Distributional Regression (IDR): A powerful nonparametric calibration technique.* 2–5 April 2019, ECMWF, Reading, United Kingdom.

2018 - APP Seminar. Invited talk: *Isotonic Distributional Regression (IDR): A powerful nonparametric calibration technique.* 29 November 2018, MeteoSwiss, Zürich, Switzerland.

- Seminar. Invited talk: *Uniqueness of the optimal non-parametric monotone regression fit for elicitable functionals.* 28 July 2018, HITS, Heidelberg, Germany.
- CSGB Seminar. Invited talk: *Robust forecast evaluation of expected shortfall.* 3 May 2018, Aarhus University, Denmark.
- 13th German Probability and Statistics Days. Contributed presentation: *Robust forecast evaluation of expected shortfall.* 27 February – 2 March 2018, University of Freiburg, Germany.
- Workshop: Robust Statistics. Invited talk: *Robust forecast evaluation of expected shortfall.* 8 February 2018, Erasmus University Rotterdam, Netherlands.
- FMD seminar. Invited talk: *Higher order elicitability.* 26 January 2018, University of Freiburg, Germany.

2017 - Research Seminars at the Institute for Statistics and Mathematics. Invited talk: *Elicitability and backtesting: Perspectives for banking regulation* 17 November 2017, Vienna University for Economics and Business WU, Austria.

- SIAM Workshop on Mathematical Modelling in Finance. Invited talk: *Higher order elicitability of expected shortfall.* 31 August-1 September 2017, Imperial College, United Kingdom.
- Interdisziplinäres Statistik-Kolloquium der Universitäten Gießen und Marburg. Invited talk: *Higher order elicitability* 4 July 2017, University of Gießen, Germany.
- 19th Workshop on Stochastic Geometry, Stereology and Image Analysis. Invited talk: *Estimating particle shape and orientation using volume tensors.* 15-19 May 2017, CIRM, France.
- Workshop: Risk Quantification and Extreme Values in Applications. Contributed presentation: *How is elicitability relevant for backtesting?* 15 February 2017, EPFL, Lausanne, Switzerland.
- Mathematisches Kolloquium. Invited talk: *Higher order elicitability.* 27 January 2017, University of Ulm, Germany.