

# Mats Julius Stensrud

MD Dr.philos

#### Personal details

Email mats.stensrud@epfl.ch

# Current job

2020- Tenure-Track Assistant Professor of Statistics, Chair of Biostatistics, Dep. of Mathematics, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland. Causal Inference, Medicine, Epidemiology, Statistical Methodology.

# Work experience

- 2018-2020 **Fulbright scholar and Kolokotrones fellow**, *Dep. of Epidemiology*, Harvard School of Public Health, USA.

  Causal Inference, Longitudinal data.
  - 2018 **Residency**, *Dep. of Medicine*, Diakonhjemmet Hospital, Oslo, Norway. 50% position March-September 2018. Clinical training in internal medicine (LIS 2)
  - 2018 **Postdoctoral fellow**, *Dep. of Biostatistics*, University of Oslo, Norway. 50% position. Causal Inference, Survival analysis, Epidemiologic methods
- 2016-2018 **Intern**, *Dep. of Medicine and Dep. of Surgery*, Diakonhjemmet Hospital, Oslo. 100% position. Clinical training in internal medicine and general surgery (LIS 1 / Turnus)

#### Education

- 2016 MD, Medical Doctor, University of Oslo, Norway.
- 2015 **Dr.philos**, *Neuroscience*, University of Oslo, Norway.

  Dissertation: Non-classical release of classical neurotransmitters
- 2014 **MSc**, *Applied Statistics*, University of Oxford, United Kingdom. Best achievements in the MSc program
- 2013 BSc, Mathematics, University of Oslo, Norway.

# Teaching

- 2022- MATH-614 (Foundations of Causal Inference), Department of Mathematics, EPFL.
  PhD course.
- 2022- MATH-352 (Causal thinking), Department of Mathematics, EPFL.

  MSc and advanced BSc course (service course, not intended for mathematics students).

- 2021- MATH-336 (Randomization and Causation), Department of Mathematics, EPFL.

  3rd year BSc course.
- 2021- **MATH-449 (Biostatistics)**, *Department of Mathematics*, EPFL. 1st year MSc course.
- 2020-2021 **MF9570 (Causal Inference)**, *Department of Biostatistics*, University of Oslo. PhD course. 7 hours of lectures on mediation analysis and causal mechanisms.
- 2019-2020 **HT194 (Clinical Epidemiology)**, *Harvard Medical School*, Harvard University. Teaching assistant for Prof. Miguel Hernán.
  - 2019 EPI207 (Advanced Epidemiologic Methods), Harvard School of Public Health, Harvard University.
    Teaching assistant for Prof. James Robins.
  - 2017 **HEL8020 (Causal inference)**, *Faculty of Medicine*, University of Tromsø, Norway. Lecturing PhD-students and researchers causal inference methods for Health Registry Data.
  - 2015 **MF9490 (Statistics)**, *Faculty of Medicine*, University of Oslo, Norway. Lecturing statistics for PhD students in the Laboratory animal handling course.
- 2014-2016 **MED1100 (Statistics)**, *Faculty of Medicine*, University of Oslo, Norway. Classroom teaching. Introduction to statistics for 1st year MD students.

# Fellowships and grants

- 2023- SNSF Starting Grant (Replacement of ERC Starting Grant), Dep. of Mathematics, EPFL.
  1'275'668 CHF. Causal Inference for Infectious Disease Control
- 2022- **SNSF Research Grant**, *Dep. of Mathematics*, EPFL. 820'182 CHF. Causal Inference when resources are limited
- 2019-2020 **Kolokotrones Fellow**, *Dep. of Epidemiology*, Harvard University. Causal Inference
- 2018-2019 **Fulbright Research Scholar**, *Dep. of Epidemiology*, Harvard University. Causal Inference
  - 2018 Unger Vetlesen Scholarship, Dep. of Epidemiology, Harvard University.
  - 2015 Eckbo Legat, Dep. of Statistics, University of Oxford.
  - 2014 Jansen Scholarship, Dep. of Statistics, University of Oxford.
  - 2013 **Norway Oxford Scholarship**, *Dep. of Statistics*, University of Oxford. Awarded to one Norwegian annually
  - 2013 **Senior Scholarship**, *Dep. of Statistics*, University of Oxford. For excellent academic records
- 2012, 2014 **Sønneland Scholarship**, Faculty of Medicine, University of Oslo.
  - 2011 **Apeland Viking Scholarship**, University of Wisconsin-Madison. Studies in Health Communication. Awarded to one Norwegian annually
  - 2009 **Fulbright Scholarship for Outstanding European Students**, Drexel University. Social science and American history

### Awards

2023 Lambert Award.

Swiss Statistical Society. Awarded biennially to one person under 35 years.

2023 Arthur-Linder Prize.

Swiss-Austrian Biometrics Society. Awarded biennially to one person under 35 years.

2018 Rothman Prize (Runner Up).

Runner up for best article in Epidemiology in 2018.

2018 Statistical Excellence Award for Early-Career Writing (Runner Up).
Runner up for best article in 2018 (Joint with Morten Valberg).

2018 **Best Paper Award**, Norwegian Epidemiological Association.

Inequality in cancer risk suggest bad genes rather than bad luck, Nature Communications.

2018 Candidate at the Lindau Nobel Laureate Meeting.

The Norwegian participant in the 68th Lindau Nobel meeting with 39 Nobel Laureates.

2014 **Gutierrez-Toscano Prize**, *Dep. of Statistics*, University of Oxford. I obtained the best achievements in the MSc program in Applied Statistics.

#### Invited workshops

- 2023 Causal Inference with Competing Events, with Jessica Young, European Causal Inference Conference, Oslo, Norway.
- 2022 **Competing Events in Epidemiology**, *with Jessica Young*, Karolinska Institutet, Stockholm.
- 2022 Causal Inference with Competing Events, with Jessica Young, Society of Epidemiologic Research, Chicago, USA.

#### Selected talks

- 2023 **Society of Epidemiologic Research**, *Symposium speaker*, Portland, USA.
- 2023 **Atlantic Causal Inference Conference**, *Contributed*, Austin, Texas. Superoptimal regimes
- 2023 **BSU Seminar**, *Invited talk*, Cambridge, UK.
  BSU Seminar: 'From Data to Decisions: Causal Inference Motivated by Policy Questions'
- 2023 **Berlin Epidemiological Methods Colloquium**, *Invited talk*, Germany. On optimal treatment regimes assisted by algorithms
- 2023 **Statistics Seminar**, *Invited talk*, Tel Aviv University, Israel. Bridging data and decisions
- 2022 **Applied Statistics Seminar**, *Invited talk*, ETH, Zurich.

  Bridging data and decisions: How strings of numbers can honestly guide future policies
- 2022 **Center for Causal Inference Fall Seminar**, *Invited talk*, University of Pennsylvania, USA.
  - Superoptimal Regimes
- 2022 EFPSI Basel, Discussant, Basel, USA.

- **ISPM Bern Seminar**, *Invited talk*, Bern, Switzerland. Causal reasoning in settings with competing truncating events
- **Biostatistics Seminar**, *Invited talk*, New York University, USA. Causal reasoning in the presence of competing and truncating events
- **Society of Epidemiologic Research**, *Symposium organizer*, Chicago, USA. What we think about when we think about fairness
- **Statistics Seminar**, *Invited*, University of Waterloo (online), Canada.
- 2022 Swiss Statistics Seminar, Invited, Bern, Switzerland.
- **Centre for Statistical Methodology Series**, *Invited*, London School of Hygiene and Tropical Medicine (online), London, UK.
- 2021 Online Causal Inference Meeting, Invited discussant, Stanford (online), USA.
- **CMStatistics 2020**, *Invited*, London (online), UK. Causal inference when resources are constrained
- 2021 Biostatistics Seminar at the Karolinska Institute, Invited, Stockholm, Sweden (Online).
   Causal effects conditional on post-treatment events
- **The 2021 Pacific Causal Inference Conference**, *Invited*, Beijing (online), China. Causal inference when resources are limited
- **Society of Epidemiologic Research**, *Contributed*, San Diego (online), USA. Non-discriminatory allocation of limited health resources
- **JGH Epidemiology Seminar 2021**, *Invited*, (online), Montreal. Causal inference in settings with competing events and truncation by death
- **Biometrischen Kolloquium 2021**, *Invited*, (online), Germany. Causal inference Under Resource Constraints
- 2020 CMStatistics 2020, Invited, London (online), UK.
  New estimands for causal inference conditional on post-treatment variables
- **Society of Epidemiologic Research**, *Contributed*, Boston (online), USA. New estimands for conditional causal effects
- 2020 Center for Statistics Adolphe Quetelet Seminar Series, Invited, University of Ghent, Belgium.
  Causal reasoning in settings with competing events and truncation by death
- **Seminar in Probability Theory and Statistics**, *Invited*, University of Basel, Switzerland.
  - New estimands for causal inference conditional on a post-treatment event
- **Biostatistics seminar**, *Invited*, University of Geneva, Switzerland. Causal Inference Conditional on a Post-Treatment Variable
- **Joint Statistical Meeting**, *Contributed*, Philadelphia, USA. Causal Inference Conditional on a Post-Treatment Event
- 2020 European Causal Inference Meeting, Contributed, Oslo, Norway (Online due to COVID-19).
  Conditional Separable Effects

- 2020 **Boston University Causal Inference Seminar**, *Invited*, Boston University, USA. The separable effects: New estimands for causal inference in time-to-event settings
- 2019 Causal Inference Reading Group, Invited, University of Pennsylvania, USA. Separable Effects
- 2019 **Ulm Mathematical Colloquium**, *Invited*, Ulm, Germany. Causal Inference in Continuous Time
- 2019 **Society of Epidemiologic Research**, *Invited*, Minneapolis, USA. Separable effects: new estimands for causal inference in competing risk settings
- 2019 **Lifetime Data Science: Foundations and Frontiers**, *Invited*, Pittsburgh, USA. New Estimands for Causal Inference in the Presence of Competing Risks
- 2019 Biostatistics group meeting, Harvard Pilgrim Health Care Institute, Invited, Boston, USA.
  Separable effects for competing risks settings.
- 2019 **Atlantic Causal Inference Conference**, *Contributed*, Montreal, Canada. Causal inference in the presence of competing risks
- 2019 **European Causal Inference Meeting**, *Contributed*, Bremen, Germany. Separable effects: New estimands for causal inference in competing risk settings
- 2018 **European Causal Inference Meeting**, *Contributed*, Florence, Italy.

  Marginal structural models for survival analysis in continuous time: Theoretically appealing and practically feasible
- 2017 Causal Inference for Longitudinal Data, Invited, Columbia University, USA.
- 2017 Workshop on Causal Inference in Health Registry Research, *Invited*, Oslo, Norway.
- 2016 **Biostatistics seminar**, *Invited*, Oslo, Norway.
- 2016 NordStat, The Nordic Statistical Meeting, Invited, Copenhagen, Denmark.
- 2016 Bergen Biostatistical Seminar, Invited, Bergen, Norway.
- 2015 Instrumental Variables and Causal Inference, Invited, Copenhagen, Denmark.

### Postdoc supervision

- 2023- **Elise Dumas**, *Department of Mathematics*, EPFL, Switzerland. Breast Cancer Research
- 2021- **Aaron Sarvet**, *Department of Mathematics*, EPFL, Switzerland. Theory and methods for causal inference with limited resources
- 2022-2023 **Anders Huitfeldt**, *Department of Mathematics*, EPFL, Switzerland. Causal inference in medicine
- 2020-2021 **Pål Christie Ryalen**, *Department of Mathematics*, EPFL, Switzerland. Theory and methods for survival analysis

## PhD supervision

2023- **Julien Laurendeau**, *Department of Mathematics*, EPFL, Switzerland. PhD student, research on theory of causal inference (main supervisor).

- 2022- **Lorenzo Gasparollo**, *Department of Mathematics*, EPFL, Switzerland. PhD student, research on causal inference methods (main supervisor).
- 2020- **Matias Janvin**, *Department of Mathematics*, EPFL, Switzerland. PhD student, research on causal inference methods (main supervisor).
- 2021- **Amit Sawant**, *Department of Mathematics*, EPFL, Switzerland. PhD student, the EPFL Glboal leaders program (main supervisor).
- 2020- Niklas Nyboe Maltzahn, Department of Mathematics, EPFL, Switzerland. visiting PhD student, research on estimation in continuous time multistate models (co-supervisor). Thesis defended September 14th 2021.
- 2020-2021 **Aaron Sarvet**, *Harvard School of Public Health*, Harvard University, USA. Co-advisor and committee member
- 2017-2019 **Pål Christie Ryalen**, *Faculty of Medicine*, University of Oslo, Norway. PhD in biostatistics (co-supervisor). Thesis defended September 5th 2019.

#### Editorial boards

- 2022- Biometrics.
- 2022- Journal of the Royal Statistical Society Series A (JRSS-A).

#### Peer review service 2017-2023

- Annals of Statistics (2023)
- o Journal of the Royal Statistical Society Series B (JRSS-B) (2022,2023)
- o Statistical Science (2020, 2021, 2023)
- Journal of the American Statistical Association (2021,2022)
- o PNAS (2021)
- o Biometrika (2019, 2020, 2021,2022)
- o Epidemiology (2018, 2019, 2020, 2021, 2022)
- o Annals of Internal Medicine (2018, 2019, 2020, 2021)
- o British Medical Journal (BMJ) (2018, 2021)
- Annals of Applied Statistics (2017, 2021)
- o Biometrics (2020, 2021, 2022)
- Lifetime Data Analysis (2020,2021)
- European Journal of Epidemiology (2020, 2021)
- American Journal of Epidemiology (2019, 2020, 2023)
- Scandinavian Journal of Statistics (2019, 2020)
- Statistics in Medicine (2019,2022)
- Biometrical Journal (2018)

#### Other professional activities

- 2022 **EuroCIM Steering Committee**, Causal Inference Netowrk in Europe, Europe.
- 2022 European Research Council (ERC), Starting Grant reviewer, EU.

- 2022 **Berrow Foundation Scholarships**, *Committee member*, Oxford, UK.
- 2022 Occasional private consulting on causal inference, Switzerland and Germany.
- 2021 Causal report for Armasuisse, Report on Causality Research, Switzerland.
- Joint Statistical Meeting (JSM), Contributed Session Organizer Causal Inference When Resources Are Limited, USA (Virtual due to COVID-19).
- 2021 Conference on Uncertainty in Artificial Intelligence (UAI), Senior Program Committee Member, USA (Virtual due to COVID-19).
- 2021 Research Council, Grant reviewer, Israel.
- 2020 Conference on Uncertainty in Artificial Intelligence (UAI), Program Committee, Vancouver (Virtual due to COVID-19).
- 2019-2020 **Kolokotrones Symposium on Data Science**, *Organizer of monthly seminars*, Harvard School of Public Health.
- 2017-2018 Medical Research Council, Grant reviewer, UK.