

40th IWSM L 2026

40th International Workshop on Statistical Modelling

28.06 – 03.07.2026, Oslo (Norway)

Programme



UNIVERSITY
OF OSLO



Norsk statistisk forening
avdeling Oslo

integreat



Welcome to IWSM 2026

Dear Delegates,

We are delighted to welcome you to Oslo, Norway, for the 40th International Workshop on Statistical Modelling (IWSM). You are attending the northernmost IWSM ever, happening for the first time in Norway. We are around 200 Delegates, from 23 countries, with all (inhabited) continents represented. There will be 1 short course, more than 80 poster presentations (of which 31 held by PhD candidates), 54 oral presentations (33 by PhD candidates) and 5 invited talks, including one to celebrate the 30th anniversary of the appearance of the 1996 seminal paper on P-splines by Eilers & Marx.

Oslo is a compact capital city surrounded by the Oslo Fjord on its south side and the national protected forest Marka to its east, north and west. The Delegates who will attend the cruise will have the chance to explore the former, those who preferred a walking tour on Holmekollen, the latter. The social activities are completed by a welcome reception on the roof terrace of the Oslo Science Park and a conference dinner at Voksenåsen Kultursenter, a cultural centre gifted by Norway to Sweden to celebrate their friendship.

At IWSM, we really care about creating a friendly, welcoming environment, and we pay particular attention to Delegates who are still in their doctoral programme. We know how important their work is, so the workshop will again offer prizes for the best student oral presentation, poster and paper. The Statistical Modelling Society has also provided travel awards for two PhD candidates to support their participation.

We are particularly thankful to the Scientific Committee, who started their work more than one year ago, before IWSM 2025 in Limerick. They selected the invited speakers and reviewed the submissions, and their effort has been essential in putting together a strong scientific programme. During the conference, they will also take on the important task of evaluating the candidates for the student prizes.

In addition to all of the contributed talks, we are looking forward to the presentations of our invited speakers:

- Nils L. Hjort, University of Oslo (Norway)
- Mats J. Stensrud, École Polytechnique Fédérale de Lausanne (Switzerland)
- Susanne Ditlevsen, University of Copenhagen (Denmark)
- Małgorzata Bogdan, University of Wrocław (Poland)
- Göran Kauermann, Ludwig Maximilian University of Munich (Germany)

We are also very pleased to host a short course on “*Modern methods for analysing survival and time-to-event data*”, by Ørnulf Borgan (University of Oslo) and Clara Bertinelli Salucci (University of Oslo).

We wish all of you a very nice and unforgettable week in Oslo at IWSM 2026!

Warm regards, *IWSM 2026 Organising Committee*

Oslo, 28th June 2026



For further information please visit,

IWSM 2026 website:

<https://mn.uio.no/iwsm2026/>

VisitOslo:

<https://www.visitoslo.com/>

University of Oslo:

<https://www.uio.no/english/>

Norsk Statistisk Forening, avdeling Oslo:

<https://oslo.norskstatistiskforening.no/>

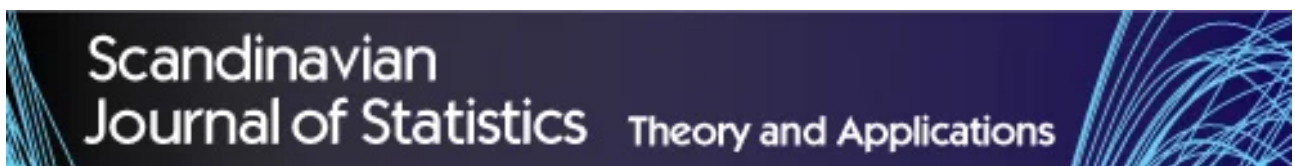
Integreat, the Norwegian Centre for Knowledge-driven Machine Learning:

<https://www.integreat.no/>

Statistical Modelling Society:

<http://www.statmod.org>

We would like to thank the Scandinavian Journal of Statistics for sponsoring an invited session.

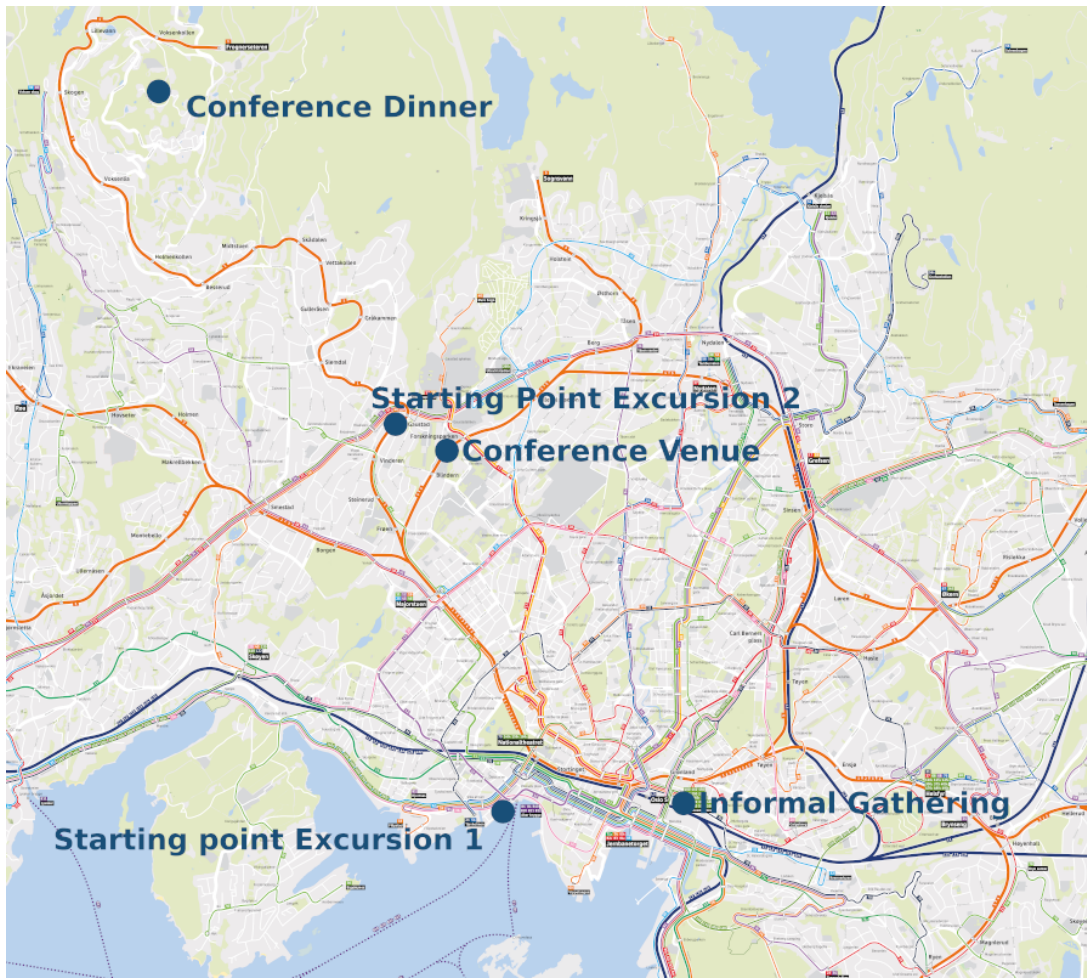


Scientific Committee

Riccardo De Bin (chair), University of Oslo (Norway)
Aliaksandr Hubin (co-chair), Norwegian University of Life Sciences (Norway)
Irantzu Barrio Beraza, University of the Basque Country (Spain)
Kevin Burke, University of Limerick (Ireland)
Jo Eidsvik, Norwegian University of Science and Technology (Norway)
Jochen Einbeck, Durham University (United Kingdom)
Jacob von Bornemann Hjelmberg, University of Southern Denmark (Denmark)
Giles Hooker, University of Pennsylvania (USA)
Nadja Klein, Karlsruhe Institute of Technology (Germany)
Jan Terje Kvaløy, University of Stavanger (Norway)
Kenan M. Matawie, Western Sydney University (Australia)
Idemauro Antonio Rodrigues de Lara, Universidade de São Paulo (Brasil)
Dae-Jin Lee, IE University (Spain)
Vito Michele Rosario Muggeo, University of Palermo (Italy)
Maryam Tayefi Nasrabadi, Norwegian Centre for E-health Research (Norway)
Ilaria Prosdocimi, Ca' Foscari University of Venice (Italy)
María Xosé Rodríguez Álvarez, University of Vigo (Spain)
Bård Støve, University of Bergen (Norway)
Massimo Ventrucci, University of Bologna (Italy)
Helga Wagner, Johannes Kepler University of Linz (Austria)

Organising Committee

Riccardo De Bin (chair), University of Oslo (Norway)
Clara Bertinelli Salucci (co-chair), University of Oslo (Norway)
Berit Omli Øksnes, University of Oslo (Norway)
Valeria Vitelli, University of Oslo (Norway)
Hilde Vinje, Norwegian University of Life Sciences (Norway)
Marco Speciale, University of Palermo (Italy)
Ida Scheel, University of Oslo (Norway)
Hedvig Borgen Reiersrud, University of Oslo (Norway)
Aliaksandr Hubin, Norwegian University of Life Sciences (Norway)
Hugo Lewi Hammer, Metropolitan University of Oslo (Norway)
Anne Marie George, University of Oslo (Norway)
Solveig Engebretsen, Norwegian Computing Center (Norway)
Francesco Di Ruscio, Norwegian Institute of Public Health (Norway)
William Denault, Oslo University Hospital (Norway)
Kevin Burke, University of Limerick (Ireland)
Irantzu Barrio Beraza, University of the Basque Country (Spain)



Conference Venue:

Ole-Johan Dahls Building (Gaustadalléen 23B, Oslo)

Closest metro stop: Forskningsparken

Informal Gathering:

Mastermind Bar (Schweigaards gate 17, Oslo)

Closest metro stop: Grønland

Welcome Reception:

Oslo Science Park (Gaustadalléen 21, Oslo, near the Conference Venue)

Closest metro stop: Forskningsparken or Blindern

Conference Dinner:

Voksenåsen Kultursenter (Ullveien 4, Oslo)

Closest metro stop: Voksenkollen

Starting point Excursion 1:

Rådhusbrygge 3, Oslo (but a group will leave from the Conference Venue)

Closest metro stop: Nationaltheatret

Starting point Excursion 2:

Slemdalsveien 85, Oslo (but a group will leave from the Conference Venue)

Closest metro stop: Gaustad

Ole-Johan Dahls Building



Registration:

OJD Vestibule

Short course:

Seminarrom Java

Oral presentations:

Aud Simula

Poster session:

OJD Vestibule / Aud Smalltalk

Coffee breaks:

OJD Ole Johan Spiseri 1. etasje

Lunches:

OJD Ole Johan Spiseri 1. etasje

SMS EC and Journal meetings:

OJD Ole Johan Spiseri 2. etasje

Room available during the conference for the Delegates:

Seminarrom Java (a few small meeting rooms can also be made available upon request)

Schedule

Sun 28.06	Mon 29.06	Tue 30.06	Wed 01.07	Thu 02.07	Fri 03.07	
8:15 – 8:45	Registration	Registration	Registration	Registration	Registration	8:15 – 8:45
8:45 – 10:25	Contributed	Contributed	Contributed	Contributed	Contributed	8:45 – 10:25
10:25 – 11:00	Break	Break	Break	Break	Break	10:25 – 11:00
11:00 – 12:00	Invited	Invited	SJS Invited	Invited	Special Session P-splines	11:00 – 12:40
12:00 – 13:00	Contributed	Contributed	Contributed	SMS assembly	Closing	12:40 – 13:00
13:00 – 14:20	Lunch	Lunch	Lunch	Lunch	Lunch	13:00 – 14:20
14:30 – 16:00	Contributed	Contributed	Excursions	Contributed		
16:00 – 16:35	Break	Break		Break		
16:35 – 17:55	Contributed	Poster Session		Contributed		
Evening	18:00 Welcome Reception			19:15 aperitif 20:00 confer. dinner		
19:00 Informal Gathering						

Oral Presentations ¹

Monday, 29th of June

08:15 - 08:45 Registration

08:45 - 10:25 Contributed Session

chair: Kevin Burke

- 08:45 - 09:05 Thordis L. Thorarinsdottir, Riccardo De Bin
Welcome Address & Conference Overview
- 09:05 - 09:25 Johannes Brachem, Paul F.V. Wiemann, Thomas Kneib
Bayesian Penalized Transformation Models
- 09:25 - 09:45 Johannes Brachem^S, Thomas Kneib
Interpretable Transformation Models for Distributional Regression
- 09:45 - 10:05 Katharina Ammann^S, Timo Adam, Jan-Ole Fischer
Non-Homogeneous Markov-Switching Distributional Regression Models
- 10:05 - 10:25 Jack Moore^S, Andreas Groll, Kevin Burke, Shirin Moghaddam
Penalised Piecewise Exponential Distributional Regression Model for Time-to-Event Analysis

10:25 - 11:00 Coffee Break

11:00 - 12:00 Invited Speaker

chair: Ruggero Bellio

Nild L. Hjort
Counting the Uncounted: How Many Were Killed in Guatemala, 1978-1996?

12:00 - 13:00 Contributed Session

chair: Hans J. Skaug

- 12:00 - 12:20 Davide Benussi^S, Ioannis Kosmidis, Alessandra Salvan, Nicola Sartori
Focused median bias reduction and post-FIC-selection inference
- 12:20 - 12:40 Philipp Sterzinger, Ioannis Kosmidis, Irini Moustaki
Maximum softly penalised likelihood for Factor Analysis
- 12:40 - 13:00 Diego Tovar-Rios^S, Anita Sunde, Dries De Wite, Geert Verbeke, Geert Molenberghs, Ariel Alonso
Partitioned Pseudo-Likelihood for Scalable Joint Modelling of Multivariate Longitudinal Data

13:00 - 14:20 Lunch

14:20 - 16:00 Contributed Session

chair: Irantzu Barrio Beraza

- 14:20 - 14:40 Szurewsky Chloé^S, Le Teuff Gwénaél
Non-parametric Bayesian Approach for the One-Sample Log-Rank Test

¹Speakers are underlined, the ^S symbol denotes speakers eligible for a student award

- 14:40 - 15:00 Federico Ferraccioli, Livio Finos, Angela Andreella
Resampling the Null Space: Nonparametric Tests for Crossed Random Effects Models
- 15:00 - 15:20 Qingzi Huo^S, Marco Simnacher, Xiangnan Xu, Sonja Greven
Extending the Generalised Covariance Measure for Conditional Independence Testing in Repeated-Measures Data
- 15:20 - 15:40 Arnau Garcia-Fernández^S, Dimitris Rizopoulos, Judith Kooiman, Pedro Miranda-Afonso
A Strictly Proper Metric for Evaluating Dynamic Predictions for Left-Truncated and Right-Censored Data with Asymmetric Misclassification
- 15:40 - 16:00 Jonas Moss
Marginal versus typical task success in Bayesian IRT analysis of AI benchmarks
-

16:00 - 16:35 Coffee Break

16:35 - 17:55 Contributed Session

chair: Michela Battauz

- 16:35 - 16:55 Lars Knieper^S, Tobias Hepp, Nadia Müller-Voggel, Anna von Plessen, Elisabeth Bergherr
Selective Function-on-Surface Regression for Cortical Neuroimaging via Gradient Boosting
- 16:55 - 17:15 Antoni Sieminski^S, Simon Wood
Fast boosted GAM via Adaptive Smoothness Relaxation with scale-invariant tensor product interactions
- 17:15 - 17:35 Annika Strömer, Irantzu Barrio, Susana García-Gutiérrez, Andreas Mayr
Optimal categorization of continuous variables in high-dimensional models via boosting and deselection
- 17:35 - 17:55 Qiong Wu^S, Hannah Klinkhammer, Kiran Kunwar, Christian Staerk, Carlo Maj, Andreas Mayr
Genetic prediction modelling in large cohort studies via boosting distributional regression
-

18:00 - 22:00 Welcome Reception: Toppsenter @ Oslo Science Park

Tuesday, 30th of June

08:15 - 08:45 Registration

08:45 - 10:25 Contributed Session

chair: Maria-Xosé Rodríguez-Álvarez

- 08:45 - 09:05 Niccolò Cao^S, Silvia Cagnone, Livio Finos
Latent variable models for longitudinal data under missing at random
- 09:05 - 09:25 Pavel Hernández Amaro^S, María Durbán, M. Carmen Aguilera-Morillo, José María Quintana, Irantzu Barrio, Sonja Greven
Variable Domain Multivariate Functional Principal Component Analysis
- 09:25 - 09:45 Matteo D'Alessandro^S, Magne Thoresen, Øystein Sørensen
A semiparametric nonlinear mixed effects model with penalized splines using automatic differentiation
- 09:45 - 10:05 Nikolai Spuck, Moritz Berger
Sparse modeling of category-specific effects in partial proportional odds models using trees
- 10:05 - 10:25 Haoxiang Gao^S, Rumana Omar, Menelaos Pavlou
Optimally Weighted Random Forest for Predicting Binary Outcomes
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10:25 - 11:00 Coffee Break

11:00 - 12:00 Invited Speaker

chair: Clara Bertinelli Salucci

Mats J. Stensrud
Optimal decision rules with policy-relevant guarantees

12:00 - 13:00 Contributed Session

chair: Magne Thoresen

- 12:00 - 12:20 Dayasri Ravi, Samyajoy Pal, Christian Heumann
Penalized Finite Mixtures of Proportional Hazards Models
- 12:20 - 12:40 Terry W.S. Chan, Mark Opdam, Sabine C. Linn, Renee X. Menezes
Cancer Recurrence Prediction Over Time: Moving beyond proportional hazards with discrete-time neural networks
- 12:40 - 13:00 Jessica Doohan^S, Aliaksandr Hubin, Lucas Kook, Kevin Burke
A statistical mixture neural-additive model
-

13:00 - 14:20 Lunch

14:20 - 16:00 Contributed Session

chair: Vito Muggeo

- 14:20 - 14:40 Cristiano Varin
Ridge estimation in network meta-analysis
- 14:40 - 15:00 Marco Grzegorzcyk
Tied-Covariance Mixtures of Gaussian Bayesian Networks
- 15:00 - 15:20 Ilia Negri, Maura Mezzetti
Hierarchical Bayesian Estimation of Underreporting with Multiple Data Sources

- 15:20 - 15:40 Yilin Chen^S, Davide Pigoli, John A.D. Aston, Patrick A. Carter
A functional approach for variance decomposition in function-valued traits
- 15:40 - 16:00 Hedvig B. Reiersrud^S, Clara Bertinelli Salucci, Anders Kvellestad,
Riccardo De Bin
Confidence Curve Combination as an Alternative to Wilks in High-Energy Physics
-

16:00 - 16:35 Coffee Break

16:35 - 19:15 Poster Session

Wednesday, 1st of July

08:15 - 08:45 Registration

08:45 - 10:25 Contributed Session

chair: Manuela Zucknick

- 08:45 - 09:05 Klazien de Vries^S, Marieke E. Timmerman, Casper J. Albers
Bayesian D-optimal designs for GAMLSS in psychological test norming
- 09:05 - 09:25 Despo Theodorou^S, Maria Kateri
Variational Logistic Regression via the Cressie Read Family of Divergences
- 09:25 - 09:45 Monika Zimmermann^S, Simon Wood, Florian Ziel
*Scalable Estimation of Large Generalized Additive Models: Extended
Fellner-Schall via Hutch++ and Conjugate Gradients*
- 09:45 - 10:05 Jan-Ole Fischer^S
Fast and scalable inference in hidden Markov models with Gaussian fields
- 10:05 - 10:25 Johannes Piller^S, Julian Ostertag, Felipe Gentilini, Lena Zelinka,
Andreas Bender
Capturing Non-Markov Dynamics with Piecewise Exponential Additive Models
-

10:25 - 11:00 Coffee Break

11:00 - 12:00 Scand. J. Stat. Invited Speaker

chair: Geir Storvik

Susanne Ditlevsen
Estimating Tipping Points in Climate

12:00 - 13:00 Contributed Session

chair: Magne Aldrin

- 12:00 - 12:20 Fiete Sieg^S, Rafael Weißbach
Independent truncation of the exponential distribution
- 12:20 - 12:40 Rouven E. Haschka^S, Julien Hambuckers, Thomas Kneib
*Beyond Gaussian dependence: Nonparametric Vine copulas to handle
endogenous regressors*
- 12:40 - 13:00 Samyajoy Pal, Jochen Einbeck
Generalized Linear Models with Mixtures of Zero-Inflated Count Distributions
-

13:00 - 14:20 Lunch

Excursion 1 departs at **15:00 sharp** from the Oslo port. A group will leave the conference venue immediately after lunch (14:10) and reach the starting point by metro

Excursion 2 departs at **14:30 sharp** from Gaustad T-bane station. A group will leave the conference venue immediately after lunch (14:10) and walk to the starting point by metro

Thursday, 2nd of July

08:15 - 08:45 Registration

08:45 - 10:25 Contributed Session

chair: Angela Carollo

- 08:45 - 09:05 Ferdinand Buchner^S, Claudia Czado
Identifying risky flight landings using multivariate vine copula regression models
- 09:05 - 09:25 Michael D. Kraus, David Huk, Claudia Czado
Noise Contrastive Estimation for Calibrating Simplified Vine Copulas
- 09:25 - 09:45 Sheng-Tsaing Tseng, Nan-Jung Hsu
A Physics-Guided Model for Multi-Run Step-Stress Testing of Rechargeable Batteries
- 09:45 - 10:05 Maya Natascha Vienken^S, Jan-Ole Fischer, Roland Langrock, Sina Mews
Jump-augmented stochastic volatility: a discrete-time state-space approach
- 10:05 - 10:25 Iain Bell^S, Ruth O'Donnell, Jafet Belmont Osuna, Claire Miller, Michael Dunbar
Multivariate state space models for cross-correlated censored heavy metal concentrations
-

10:25 - 11:00 Coffee Break

11:00 - 12:00 Invited Speaker

chair: Aliaksandr Hubin

Malgorzata Bogdan
Identifying Low-Dimensional Patterns Using Convex Non-Differentiable Regularizers

12:00 - 13:00 SMS Annual General Meeting

chair: Helga Wagner

Helga Wagner
Statistical Modelling Society

Andreas Mayr
Statistical Modelling Journal

Irantzu Barrio Beraza
Announcement of the 41st International Workshop on Statistical Modelling (IWSM2027)

13:00 - 14:20 Lunch

14:20 - 16:00 Contributed Session

chair: Massimo Ventrucchi

- 14:20 - 14:40 Eduardo Janotti Cavalcante^S, Antonio Pedroso de Lima, Lígia Henriques-Rodrigues
Beyond Kaplan–Meier: Modelling Survival Tails
- 14:40 - 15:00 Luisa Ferrari, Maria Franco Villoria, Garritt Page
Asymmetric Dirichlet prior for informed clustering of multivariate binary data

- 15:00 - 15:20 Tobias Hepp, Elisabeth Bergherr
Model-based clustering for time series and functional data with Mixture Density Networks
- 15:20 - 15:40 Elisa Carolina Gonzalez Santacruz^S, Chang Chiann
Interval Wavelets based Multiscale Normalizing Flow for Forecasting Irregularly Sampled Time Series (CDV-FIMTS)
- 15:40 - 16:00 Adriano Zanin Zambom, Qing Wang
Additive ARCH-m(X) Model via Backfitting Algorithm
-

16:00 - 16:35 Coffee Break

16:35 - 17:55 Contributed Session

chair: Andreas Mayr

- 16:35 - 16:55 Kristína Sakmárová^S, Arnošt Komárek, Martin Otava
Novel Bayesian hierarchical group lasso and its application in pharmaceutical modelling
- 16:55 - 17:15 Razvan-Andrei Morariu^S, Tatyana Krivobokova, Gianluca Finocchio
Hierarchical Lasso for multi-factor designs
- 17:15 - 17:35 Aaron Coats^S, Vinny Davies, Mayetri Gupta
Bayesian Variable Selection for Large Datasets through Bi-Directional Splitting
- 17:35 - 17:55 Touqeer Ahmad, Thordis L. Thorarinsdottir
A new extension of the generalized Pareto distribution for modeling low threshold exceedances
-

19:15 - 20:00 Aperitif (Location: Voksenåsen Kultursenteret)

20:00 - 24:00 Conference Dinner (Location: Voksenåsen Kultursenteret)

Friday, 3rd of July

08:15 - 08:45 Registration

08:45 - 10:25 Contributed Session

chair: Rouven Michels

08:45 - 09:05 Inge Helland

The foundation of quantum mechanics as seen by a statistician

09:05 - 09:25 Aliaksandr Hubin, Åshild Krogdahl, Guro Løkka, Trond M. Kortner

Bayesian Fractional Polynomials for Optimal Dosage Estimation

09:25 - 09:45 Mikis Stasinopoulos, Robert Rigby, Fernanda De Bastiani, Julian Merder

Statistical Modelling Process: Basic Ideas and Common Pitfalls

09:45 - 10:05 Lisa Steyer, Sonja Greven

Principal component analysis for sparsely sampled density functions

10:05 - 10:25 Timo Adam, Jan-Ole Fischer

Flexible modelling of higher-order moments in stochastic volatility models

10:25 - 11:00 Coffee Break

11:00 - 12:40 Special Session Celebrating P-splines

chair: Maria Durban

Göran Kauermann

30 years of P(enalized) Splines

12:40 - 13:00 Closing Session

chair: Riccardo De Bin

Helga Wagner, Riccardo De Bin, Irantzu Barrio Beraza

Conference closing & note on IWSM2027

13:00 - 14:20 Lunch

Poster Presentations

Tuesday, 30.06.2026, 16:35 - 19:15

1. Muhammad Asif, Svitlana Drin, Stepan Mazur, Nataliya Shchestyuk. *Estimation of minimum VaR and minimum CVaR optimal portfolios for small sample and singular covariance matrix*
2. Su-Fen Yang, Yu-Cheng Chou. *A Phase II Sign-Based Ratio-of-dispersions Control Chart*
3. Giuseppe Alfonzetti, Michela Battauz. *A joint longitudinal model for students' performance on exams and academic outcomes*
4. Leila Barmoudeh, Panagiotis Tziachris, Bård Støve. *DeepKriging for Soil pH Prediction: Capturing Spatial Dependencies for Improved Spatial Mapping*
5. Brunel Darwin Ngoune Domo^S, Jan G. Hengstler, Andreas Groll. *Regularised Multi-Omics Regression modeling for Transcriptomic-Proteomic Integration in Liver-Damaged Mice*
6. James Booth, Brenda Hanley, Krysten Schuler. *Predicting disease prevalence in a clustered population*
7. Simon Pauli^S, Andreas Futschik. *Estimating Mating Behavior Through Pairwise Mutation Counts*
8. Tsai-Hung Fan, Chih-Ying Tai. *An EM Algorithm for Log-Normal Generalized Limited Failure Population Models*
9. George Smith-Kolff, Blair Robertson, Sinead Moylett. *Evaluating imputation strategies for longitudinal cohort studies*
10. Annette Möller, David Jobst, Jürgen Groß. *The zero-degree of freedom chi-squared distribution in a gradient-boosting framework for probabilistic precipitation forecasting*
11. Sascha Desmettre, Agnes Mallinger^S, Amira Meddah, Irene Tubikanec. *Approximate Bayesian computation for stochastic hybrid systems with ergodic behaviour*
12. Rouven Michels, Robert Bajons, Jan-Ole Fischer. *The Best of Both Worlds: Predicting Coverage Schemes in American Football with Supervised and Unsupervised Learning*
13. Izzati Izyani Japar^S, Gareth Ambler, Menelaos Pavlou, M. Shafiqur Rahman, Rumana Z Omar. *Sample Size Determination for Developing Risk Prediction Models with Clustered Binary Data*
14. Zachary James^S, Joseph Guinness. *A Framework for Nonstationary Gaussian Processes with Neural Network Parameters*
15. Nirian Martin. *Selecting the most efficient robust log-linear regression for Rayleigh distribution*

16. Ralitza Gueorguieva, Eugenia Buta, Maria Iannario. *Longitudinal Multivariate Mixed Models for Partially Ordered Data*
17. Chiu-Hsieh Hsu, Nathan Cunicelli. *A multiple imputation-based sensitivity analysis approach for a MNAR binary variable*
18. Ming-Che Lu, Su-Fen Yang. *A Bayesian EWMA Control Chart for Monitoring Multinomial Overdispersion Processes*
19. Simon Hirsch^S, Sven Pappert, Jonathan Berrisch, Florian Ziel. *Towards Online Distributional Regression for Time Series*
20. M. Cristina Miranda, Manuela Souto de Miranda, M. Ivette Gomes. *Estimating the extremal index in a robust way*
21. Daniele Tancini, Riccardo Rastelli, Francesco Bartolucci. *On a class of Bayesian hidden Markov models for spatio-temporal data*
22. Annamaria Guolo. *Inference in meta-analysis of accuracy of diagnostic tests under different link functions*
23. Davi Oliveira Chaves^S, Chang Chiann, Esther Ruiz, Pedro Alberto Morettin. *Determining the number of factors in locally stationary dynamic factor models*
24. Matteo Ventura, Sabrina Giordano, Dimitris Karlis, Paola Zuccolotto. *A Pairwise Likelihood Approach for High-dimensional Models for Ordinal Data*
25. Pere Puig, Joana M. Pujadas-Mora. *Statistical Modelling of the 1820 Plague in Mallorca*
26. Amaia Iparragirre, Thomas Lumley, Irantzu Barrio. *Design-based inference for AUC-based model evaluation*
27. Irantzu Barrio Beraza, Cristóbal Esteban, Thomas Kneib. *Modeling Bout Distributions in COPD with GAMLSS: From Activity Patterns to Survival*
28. Ina-Marie Berendes^S, Jana Bergmann, Andreas Groll, Thomas Jaitner. *Modelling of break point angles in the Nordic hamstring exercise using exercise variation and muscle activity data*
29. Anabela Rocha, M. Cristina Miranda, Manuela Souto de Miranda. *Robust strategies in panel data: the case of hidden outliers*
30. Eirik Høyheim. *“What-if” contributions in latent binary Bayesian neural networks*
31. M. Mar Fenoy, N. Balakrishnan, M. Carmen Pardo. *Flexible gamma frailty model with long-term survivors*
32. Luca Cibinel^S, Claudio Meggio, Lorenzo Zuccato. *Enhancing Quantum Graph Representations via Heuristics and Model-Based Clustering*

33. Kunal Rehani^S, Kenan M. Matawie. *Mixed-Effects Models for High-Frequency Longitudinal Health Data*
34. Sophie Potts^S, Martin Refisch, Elisabeth Bergherr. *Comparing Information Criteria for Prediction-based Variable Selection in Model-based Gradient Boosting*
35. Andrew McInerney, Lea Kaufmann, Maria Kateri, Kevin Burke. *Selection and fusion of categorical predictors using a smooth information criterion*
36. Colin Griesbach. *Markov-Switching Regression via Gradient Boosting Techniques*
37. Jacob Grytzka^S, Andreas Groll, Anne Dallmeyer, Nils Weitzel. *A GAMLSS approach for interpretable emulation of climate-vegetation relationships*
38. Silvia Dallari, Edoardo Redivo, Cinzia Viroli. *A Generative Model for Microclustering in DNA Data Storage*
39. Silvia Dallari, Laura Anderlucchi, Angela Montanari. *Clustering Microbiome Data via Bray-Curtis Dissimilarity-Based Mixture Models*
40. Vegard Kvernelv, Ingrid Aarnes, Petter Abrahamsen. *Depth-to-Bedrock Mapping Using Kriging with Heterogeneous Data Sources*
41. Maxi Schulz^S, Olesia Evgenievna Korchevaia, Tim Friede, Thomas Kneib, Maike Hohberg. *Supervised Machine Learning Models for Longitudinal and Clustered Data - A Scoping Review*
42. Rui Martins, Daniel Turek. *Sequential Bayesian Updating in Dynamic Hierarchical Models Without Recompile Using NIMBLE*
43. Emily Davison^S, Christina Cobbold, Richard Reeve, Claire Harris, Vinny Davies. *Scalable Bayesian Phylogenetic Models For Capturing Within-Species Trait Variation*
44. Ana E. Sipols, M. Teresa Santos-Martín, Clara Simón, Lynda Atil, Hocine Fellag. *Non-linear Cointegration Testing Based on Order Statistics: A Robust Extension of the Engle and Granger Approach*
45. Ivo Sousa-Ferreira, Ana Maria Abreu, Cristina Rocha. *The defective Beta-Gompertz rate model with a time-dependent cure proportion*
46. Giovanni Piccirilli, Aluísio Pinheiro. *Temporal Patterns of Vehicle Theft in São Paulo: Wavelet-Copula Variational Bayes Framework for Bayesian Conditional Transformation Models*
47. Baraah Abu Abbadi^S, Kevin Burke, Andrew McInerney. *Investigating Generalised Additive and Neural-Network Models: An Empirical Study*
48. Christian Pfeifer, Christopher Schaar, Beatrice Frajo-Apor, Alex Hofer. *Power calculations and simulations in case of linear mixed models if we use an accelerated longitudinal*

49. Fernanda De Bastiani, Jerfson B.N. Honório, Manuel Galea, Miguel A. Uribe-Opazo. *Detection Of Influential Curves in Functional Geostatistics*
50. Ruggero Bellio, Annamaria Guolo, Nicola Sartori. *Integrated likelihood inference for risk difference in meta-analysis with sparse data*
51. Juan M. Rodriguez-Diaz, M. Teresa Santos-Martin, M. Isabel Asensio, Irene Mariñas-Collado. *Pharmacokinetic Modeling and Personalized Design for Chemotherapy Clearance*
52. Eva Ryan, Hanna Grol-Prokopczyk, Christopher R. Dennison, Anna Zajacova, Zachary Zimmer. *A Formal Causal Framework for Estimating the Effect of Chronic Pain on Mortality in Older Adults*
53. Kushagri Tandon^S, Thordis Linda Thorarinsdottir, Geir Olve Storvik. *Distributional properties of non-Gaussian spatial fields*
54. Carlo Giovanni Camarda. *Life Table Functions and Their Uncertainty: A Unified Matrix Algebra Framework*
55. Germaine Uwimpuhwe^S, Sungkyung Kang, Mohammad Sayari, Akansha Singh, Nasima Akhter, Jochen Einbeck. *Identifying core components affecting effect sizes in educational trials*
56. Jan Vávra, Arnošt Komárek. *Fusion of MCMC and Variational Bayes for posterior approximation in hierarchical models*
57. Øystein Evandt. *A procedure and a calculator to help determine equal group sizes for confidence intervals for the effect size related to Student's two-sample t-test*
58. Chiara Rita Cunsolo^S, Mariagiulia Matteucci, Stefania Mignani. *Applying a response-time-based hierarchical latent response model to detect engagement responding in a digital competence test*
59. Ryan Marinelli. *Bayesian Benchmarking: Applications of Statistics for Efficient Model Ranking*
60. Ingrid Mauerer, Maria Iannario, Gerhard Tutz. *Regularization for Differential Item Functioning in Gender Equality Attitudes*
61. Sabine K. Schnabel, Luigi Fiorentino, Rick van de Zedde, Vivianne Vleeshouwers. *Modeling high throughput phenotyping data over time and space - an example of plant height in wild potato*
62. Iuliia Trifonova^S, Daniel Katzlberger, Natalia Nunes, Nikolaus Fortelny, Georg Zimmermann. *Federated Learning for Ancestry-Aware Cancer Subtype Classification*

63. Philip Eigen^S, Steven J. Miller, Kevin Dayaratna. *A Novel Benford-Based Approach for Detecting Anomalies in Election Data*
64. María Xosé Rodríguez Álvarez, Philippe Lambert, Vanda Inácio. *A general framework for estimating ROC curves with and without covariates*
65. Pawan Lamsal^S, Jutta Gampe, Helga Wagner. *Multistate Models– Comparison of Bayesian and Frequentist Approaches*
66. Roman Pfeiler^S, Helga Wagner. *Analyzing retirement data from Austria with a flexible Bayesian panel data model*
67. Edoardo Pandolfo^S, Nina Deliu, Brunero Liseo, Andrea Tancredi. *Modeling university outcomes: a hidden Markov model approach*
68. Btissame El Mahtout^S, Florian Ziel. *Fast Training of Mixture-of-Experts for Electricity Price Forecasting*
69. Sina Mews, Jan-Ole Fischer, Rouven Michels, Christian Deutscher. *Modelling momentum in tennis: A latent-state approach to point outcomes and rally lengths*
70. Sigurd Myhre Vittersø^S, Aliaksandr Hubin. *BGET: Bayesian Genetic Ensemble of Trees*
71. David Winkelmann, Maya Vienken, Christian Deutscher, Roland Langrock. *Statistical Modelling of Live-Betting Behaviour to Identify Match-Fixing*
72. María J. Ginzo-Villamayor. *Surnames and Population Movements in Galicia (Spain): Analysis by Cohorts and Major Cities*
73. Jungbok Lee. *Model Derived Estimate based Cutpoints Determination of Survival Data with Non-Linear Increase Hazard*
74. Kenan M. Matawie, Sargon Hasso. *Statistical Analysis of Query Transformation and Indexing Configurations in Information Retrieval*
75. Mostafa Raeisi Sarkandiz^S, Sara Ghayekhlloo, Vito M. R. Muggeo. *Joint Estimation of the Lag Parameter of the Threshold Variable in a STAR Model*
76. Stefania Lando^S, Ester Rosa, Gloria Brigiari, Dario Gregori. *Sample Size Determination for Non-Linear Effects in Cox Models Using Restricted Cubic Splines*
77. Ester Rosa^S, Stefania Lando, Gloria Brigiari, Dario Gregori. *Kolmogorov–Arnold Networks as Structured Penalized Superposition Models*
78. Forough Pazhuheian^S, John Newell, Davood Roshan. *Personalised Longitudinal Clinical Monitoring Using Multivariate Adaptive Reference Regions*
79. Claudia Collarin, Paolo Girardi, Mauro Masiol, Iliaria Prosdocimi. *Semi-Parametric Methods for Long-Term Trend Detection in Air Quality: the North-Eastern Italian Alps Case*

- 80. Lena Schemet^S, Sarah Friedrich-Welz. *Structural Limitations of PoSI in Cox Regression*
- 81. Cristina Cametti^S, Emanuele Giorgi, Daisy Lou L. Polestico, Thomas Neyens. *The performance of non-adaptive and adaptive spatial sampling designs in low-resource settings*
- 82. Dae-Jin Lee. *Performance aging curves via population functional envelopes*

IWSM 2026 – Invited Speakers

Monday, 11:00-12:00

Nils L. Hjort

Counting the Uncounted: How Many Were Killed in Guatemala, 1978-1996?

In various application domains, there is a certain ‘null cell’, inside a multinomial setup, where observations are recorded for the other cells, but where one cannot count the number of occurrences for the null cell. I develop inference theory for assessing such unknown numbers, counting the uncounted, in situations where counts are available for the other cells, via parametric modelling. The methods are used to estimate the number of persons killed in Guatemala during the Genocidio guatemalteco years 1978–1995. There are three carefully curated lists of killed people, where the information can be mapped to a Venn diagram with $2^3 = 8$ cells. Summing over the seven observed cells, $R = 47,803$ killed individuals can be identified, but how big is $N_{0,0,0}$, and hence $N = N_{0,0,0} + R$?

Tuesday, 11:00-12:00

Mats J. Stensrud

Optimal decision rules with policy-relevant guarantees

Policy makers often wish to use data to decide how treatments, interventions, or policies should be assigned to individuals. For example, the current focus on precision medicine reflects the search for individualized decision rules, adapted to a patient’s characteristics. In this presentation, I will study how to define, choose, and estimate effects that inform individualized decisions. A central difficulty, common to most existing approaches, is that as we include more covariates and aim for finer personalization, the required assumptions become stronger. As an alternative, I propose a strategy for detecting and estimating group-level effects, with statistical guarantees that the estimated groups truly differ. I then show that, in realistic settings, group-based decision rules can substantially outperform state-of-the-art optimal-regime methods, even when those methods rely on correctly specified models and are implemented with modern doubly robust machine-learning estimators.

Wednesday, 11:00-12:00

Susanne Ditlevsen

Estimating Tipping Points in Climate

In recent years there has been an increasing awareness of the risks of collapse or tipping points in a wide variety of complex systems, ranging from human medical conditions, pandemics, ecosystems to climate, finance and society. Even in systems where governing equations are known, such as the atmospheric flow, predictability is limited by the chaotic nature of the system and by the limited resolution in observations and computer simulations. These phenomena are naturally modelled by strongly nonlinear stochastic processes, which permit a statistical description. In this talk I will present methods to analyze data from such complex systems, with application to an important tipping element in the climate, the Atlantic Meridional Overturning Circulation.

Thursday, 11:00-12:00

Małgorzata Bogdan

Identifying Low-Dimensional Patterns Using Convex Non-Differentiable Regularizers

Convex regularization methods are widely used in modern statistics and machine learning, with applications ranging from genomics and signal processing to finance and network analysis. Although they are often introduced as tools for producing sparse models, their role is much broader. Many convex non-differentiable penalties can reveal meaningful structure in high-dimensional parameters, such as groups of variables with similar effects, smooth or piecewise-constant signals, or clusters of related coefficients. In this talk, I will discuss how such structures can be understood through the general notion of a pattern. A pattern describes the low-dimensional structure imposed by a regularizer; it may correspond, for example, to sparsity or to equality relations among model parameters. I will explain how this notion can be characterized geometrically through the subdifferential of the penalty. This perspective provides insight into why regularization can improve estimation: it not only reduces the apparent complexity of the problem, but also shrinks the estimator toward a simpler and more interpretable lower-dimensional structure. I will also discuss recent theoretical results on estimation accuracy and model selection consistency, and explain how pattern recovery differs from the more classical goals of accurate estimation or prediction. The analysis requires tools beyond standard asymptotic theory and leads to conditions closely related to irrepresentability-type phenomena. Examples based on the fused LASSO and SLOPE will illustrate how convex regularization can recover meaningful structure beyond variable selection alone.

Friday, 11:00-12:00

Göran Kauermann

30 years of P(enalized) Splines

We give a very personal view on 30 years of penalized regression, which started with the paper by Eilers & Marx (1996). As a contemporary witness, we can report on the early years of P-splines, and like a kaleidoscope, we aim to explain how and why penalized regression became so successful. A few examples illustrate the flexibility of the approach.

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