Programme overview

Monday, June 25

17:00-20:00	Registration, Dorpat Convention Centre

Tuesday, June 26

8:15- 9:30	Registration, Dorpat Convention Centre
9:30-10:00	Opening (*room Struve)*
10:00-11:00	Keynote lecture (*room Struve*) **Håvard Rue**
11:00-11:30	Coffee break
11:30-13:00	**I8** *(Struve)* Functional data analysis **I10** *(Baer)* Statistics for manifold data **C1** *(Parrot)* Hypotheses and tests **C2** *(Peterson)* Stochastic processes
13:00-14:00	Lunch
14:00-15:00	~~SJS lecture *(Struve)*~~ ~~**Adeline Leclercq Samson**~~ Keynote lecture *(Struve)* **Tõnu Kollo**
15:00-15:15	Nordstat 2020 *(Struve)*
15:15-16:00	Poster session with coffee
16:00-17:30	**I6** *(Struve)* On estimation in general multivariate models **I13** *(Baer)* Topics in financial mathematics **C3** *(Parrot)* Population and meta-statistics **C4** *(Peterson)* Change point analysis and time series
18:15-20:00	Guided city walks
20:00	Welcome reception (The University of Tartu Museum, Toome Hill)

Wednesday, June 27

9:00-11:00	Keynote lectures *(Struve)* **Aad van der Vaart** **Filip Lindskog**
11:00-11:30	Coffee break
11:30-13:00	**I9** *(Struve)* Discrete probability theory **I4** *(Baer)* Advances in causal inference **C5** *(Parrot)* Graphical models **C6** *(Peterson)* Distributions in statistics
13:00-14:00	Lunch
14:00-20:00	Excursions

Thursday, June 28

9:00-11:00	Keynote lectures *(Struve)* **Steffen Lauritzen** **Pauliina Ilmonen**
11:00-11:30	Coffee break
11:30-13:00	**I3** *(Struve)* Computational Bayesian statistics **I2** *(Baer)* Statistical inference for stochastic differential equations **C7** *(Parrot)* Bayesian methods and MCMC **C8** *(Peterson)* Model selection and actuarial mathematics
13:00-14:00	Lunch
14:00-15:30	**I1** *(Struve)* Statistical network analysis **I11** *(Baer)* Teaching and communicating statistics **C9** *(Parrot)* Statistical theory and multivariate statistics **C10** *(Peterson)* Maximum likelihood analysis
15:30-16:00	Coffee break
16:00-17:30	**I7** *(Struve)* Applications in spatial and spatio-temporal statistics **I12** *(Baer)* Actuarial mathematics **C11** *(Peterson)* Miscellaneous topics in statistics
19:00	Conference dinner (Building of the Estonian Students Society, J. Tõnissoni 1)

Friday, June 29

9:00-11:00	Keynote lectures *(Struve)* **Hermann Thorisson** ~~Tõnu Kollo~~ **Michael Sørensen**
11:00-11:30	Coffee break
11:30-13:00	**I5** *(Struve)* Recent advances in confidence distributions and fiducial inference **C12** *(Baer)* Random fields and spatial modelling **C13** *(Peterson)* Non-parametric statistics
13:00-13:15	Closing *(Struve)*

I1, I2, I3 etc. correspond to invited sessions and **C1, C2, C3** etc to contributed sessions.

Time for presentation:

- Length of a keynote talk is 60 minutes, including discussion.
- Length of an invited talk is 30 minutes, including discussion.
- Length of a contributed talk is 20 minutes + 2 minutes for discussion.

Detailed programme

Tuesday, June 26

8:15- 9:30	Registration, Dorpat Convention Centre	
9:30-10:00	Opening	*Room: Struve*
10:00-11:00	Keynote lecture *Chair: Krista Fischer*	*Room: Struve*

Håvard Rue (King Abdullah University of Science and Technology)
Bayesian quantile regression for discrete observations

11:00-11:30	Coffee break	
11:30-13:00	**I8** Functional data analysis *Organizer: Andreas Kryger Jensen* *Chair: Ingrid Glad*	*Struve*

Andreas Kryger Jensen (University of Copenhagen)
Identifying and predicting fluid build-up in the lungs

Sara Sjöstedt de Luna (Umeå University)
Prediction of spatial functional random processes: comparing functional and spatio-temporal kriging approaches

Niels Lundtorp Olsen (University of Copenhagen)
Domain selection for functional data: extending false discovery rates to p-values defined on continuous domain

11:30-13:00	**I10** Statistics for manifold data *Organizer: Andrew Wood* *Chair: Aad van der Vaart*	*Baer*

Benjamin Eltzner (University of Gottingen)
Slowly converging sample means

Stefan Sommer (University of Copenhagen)
Probabilistic approaches to statistics of manifold data

Andrew Wood (University of Nottingham)
CLT for the intrinsic Fréchet mean on compact Riemannian manifolds

11:30-13:00	**C1** Hypotheses and tests *Chair: Mare Vähi*	*Parrot*

Michael Baron (American University)
Stepwise, minimax and weighted methods for sequential tests of multiple hypotheses

Juris Breidaks (Central Statistical Bureau in Latvia)
At-risk-of-poverty rate variance estimations using Gaussian kernel and smoothing splines in R package vardpoor

Søren Højsgaard (Aalborg University)
Inference in mixed models in R - beyond the usual asymptotic likelihood ratio test

11:30-13:00	**C2** Stochastic processes *Chair: Raul Kangro*	*Peterson*

Emil Aas Stoltenberg (University of Oslo)
Models and inference for on-off data via clipped Ornstein-Uhlenbeck processes

Abhishek Pal Majumder (Stockholm University)
Exact long term descriptions of diffusions under Markovian switching

Stepan Mazur (Örebro University)
Singular matrix-variate gamma distribution

Sari Lasanen (University of Oulu)
Cauchy difference priors for edge-preserving Bayesian estimation in inverse problems

13:00-14:00	Lunch	
14:00-15:00	Keynote lecture *Chair: Niels Richard Hansen*	*Struve*

~~**Adeline Leclercq Samson** (Université Grenoble Alpes)~~
~~*On some stochastic neuronal models*~~

Tõnu Kollo (University of Tartu)
A journey from multivariate normality to skewed data models

15:00-15:15	Nordstat 2020	*Struve*
15:15-16:00	Poster session with coffee	
16:00-17:30	**I6** On estimation in general multivariate models *Organizer: Tatjana von Rosen* *Chair: Silvelyn Zwanzig*	*Struve*

Tatjana von Rosen (Stockholm University)
Bilinear regression with rank restrictions on the mean and the dispersion matrix

Annika Tillander (Linköping University)
Csörgő-Csörgő-Horwáth-Mason based inference for high-dimensional linear models

Toni Duras (Jönköping University)
An extension of the fixed-effects principal component model to a common principal component environment

16:00-17:30	**I13** Topics in financial mathematics *Organizer & chair: Tommi Sottinen*	*Baer*

Seppo Pynnönen (University of Vaasa)
Event study testing with cross-sectional correlation due to partially overlapping event windows

Lauri Viitasaari (University of Helsinki)
Structural change detection in multivariate systems and the recent financial crisis period

Marko Voutilainen (Aalto University)
On model fitting and estimation of stationary processes

16:00-17:30	**C3** Population and meta-statistics *Chair: Imbi Traat*	*Parrot*

Helle Visk (Statistics Estonia)
Index-based methodology in population statistics

Jurgita Markevičiūtė (Vilnius University)
The relationship between VAT GAP and macroeconomic indicators

Marcus Westerberg (Uppsala University)
The simulation of prostate cancer prevalence

Jonas Moss (University of Oslo)
A Bayesian meta-analysis method that corrects for publication bias

16:00-17:30	**C4** Change point analysis and time series *Chair: Petr Lachout*	*Peterson*

Gebrenegus Ghilagaber (Stockholm University)
Bayesian change-point modelling of the effects of 3-points-for-a-win rule in football

Emanuele Gramuglia (University of Oslo)
A fault prediction method for temporal data

Gunnar Rosenqvist (Hanken School of Economics)
Modelling ultra-high frequency trade durations with the ACD model

Šárka Hudecová (Charles University)
Detection of changes in time series of counts

18:15-20:00	Guided city walks
20:00	Welcome reception (The University of Tartu Museum, Toome Hill)

Wednesday, June 27

9:00-11:00	Keynote lectures *Chair: Nils Lid Hjort*	*Struve*

Aad van der Vaart (Leiden University)
On Bayesian uncertainty quantification

Filip Lindskog (Stockholm University)
Valuation of stochastic cashflows subject to capital requirements

11:00-11:30	Coffee break	
11:30-13:00	**I9** Discrete probability theory *Organizer: Daniel Ahlberg* *Chair: Jüri Lember*	*Struve*

Alexandre Stauffer (University of Bath)
Competition in randomly growing processes

Daniel Ahlberg (Stockholm University)
Spatial growth and competition

Daniel Valesin (University of Groningen)
Monotonicity for multi-range percolation on oriented trees

11:30-13:00	**I4** Advances in causal inference *Organizer: Ingeborg Waernbaum* *Chair: Krista Fischer*	*Baer*

Ingeborg Waernbaum (Umeå University)
Model misspecification and bias for inverse probability weighting and doubly robust estimators

Kjetil Røysland (University of Oslo)
Causal interpretation in survival analysis

Juha Karvanen (University of Jyväskylä)
Towards automated causal inference

11:30-13:00	**C5** Graphical models *Chair: Tatjana von Rosen*	*Parrot*

Joona Karjalainen (Aalto University)
Parameter estimators of sparse random intersection graphs with thinned communities

Priyantha Wijayatunga (Umeå University)
Resolving the Lord's paradox with predictive and causal arguments

Petr Lachout (Charles University)
Stochastic optimization program with random decision points

Tatjana Pavlenko (KTH Royal Institute of Technology)
Graphical posterior predictive classifier: Bayesian model averaging using sequential Monte Carlo methods

11:30-13:00	**C6** Distributions in statistics *Chair: Meelis Käärik*	*Peterson*

Annika Krutto (University of Tartu)
On empirical cumulant function based estimation in stable laws

John P. Nolan (American University)
A measure of dependence for multivariate stable distributions

Alexander Andronov (Saint Petersburg State University of Civil Aviation) *On a parametrical estimation for a convolution of exponential densities*

Igor V. **Zolotukhin** (Shirshov Institute of Oceanology)
On generalized multivariate Linnik distribution

13:00-14:00	Lunch
14:00-20:00	Excursions

Thursday, June 28

9:00-11:00	Keynote lectures *Chair: Michael Sørensen*	*Struve*

Steffen Lauritzen (University of Copenhagen)
Maximum likelihood estimation in Gaussian distributions under positivity

Pauliina Ilmonen (Aalto University)
On nonparametric depth based classification of functional observations

11:00-11:30	Coffee break	
11:30-13:00	**I3** Computational Bayesian statistics *Organizer & chair: Matti Vihola*	*Struve*

Simo Särkkä (Aalto University)
Gaussian approximations of SDEs in Metropolis adjusted Langevin algorithms

Mikko Kuronen (Natural Resources Institute Finland, Luke)
Bayesian inference for tree regeneration models using MCMC and INLA

Jordan Franks (University of Jyväskylä)
Importance sampling and pseudomarginal Markov chain Monte Carlo methods for exact inference

11:30-13:00	**I2** Statistical inference for stochastic differential equations *Organizer: Michael Sørensen* *Chair: Filip Lindskog*	*Baer*

~~**Michael Sørensen** (University of Copenhagen)~~
~~*Maximum likelihood estimation for stochastic differential equations with random effects*~~

Søren Wengel Mogensen (University of Copenhagen)
Structure learning and linear stochastic differential equations

Jimmy Olsson (KTH Royal Institute of Technology)
Particle-based online smoothing and parameter learning in partially observed diffusion processes

11:30-13:00	**C7** Bayesian methods and MCMC *Chair: Märt Möls*	*Parrot*

Aliaksandr Hubin (University of Oslo)
Deep Bayesian regression models

Benjamin Christoffersen (Copenhagen Business School)
Discrete state space models in survival analysis: a particle filter application

Gudmund Hermansen (BI Norwegian Business School)
Peacekeeping Operations and the intensity of violence in internal armed conflicts

Øyvind Hoveid (Norwegian Institute of Bioeconomy Research)
Hard functional parameter constraints in Bayesian estimation of economic models

11:30-13:00	**C8** Model selection and actuarial mathematics *Chair:Tatjana Pavlenko*	*Peterson*

Niels Richard Hansen (University of Copenhagen)
Post-selection inference: risk estimation after data-driven model selection

Vinnie Ko (University of Oslo)
Focused information criterion for copula

Farrukh Javed (Örebro University)
Fourth cumulant for multivariate aggregate claim models

Meelis Käärik (University of Tartu)
Lambert W random variables as a tool for skewing distributions

13:00-14:00	Lunch	
14:00-15:30	**I1** Statistical network analysis *Organizer: Olga Klopp* *Chair: Tom Britton*	*Struve*

Olga Klopp (ESSEC Business School)
Network models and sparse graphon estimation

Maxim Panov (Skoltech, Moscow)
Optimal estimation in mixed membership stochastic block models

Catherine Matias (CNRS, Paris)
Semiparametric stochastic block model for longitudinal network

14:00-15:30	**I11** Teaching and communicating statistics *Organizer: Inger Persson* *Chair: Rolf Larsson*	*Baer*

Lena Zetterqvist (Lund University)
Teaching statistics using technology

Kathrine Frey Frøslie (University of Oslo)
How to build confidence

Inger Persson (Uppsala University)
Flipping the classroom

14:00-15:30	**C9** Statistical theory and multivariate statistics *Chair: Kristi Kuljus*	*Parrot*

Dietrich von Rosen (Swedish University of Agricultural Sciences)
Mixed linear models with latent variables

Silvelyn Zwanzig (Uppsala University)
On generalized total least squares estimators for big errors-in-variables models

Magnus Ekström (Umeå University)
A class of asymptotically efficient estimators based on sample spacing

Jovita Gudan (Vilnius University)
Functional approach to modelling of daily tax revenues

14:00-15:30	**C10** Maximum likelihood analysis *Chair: Daniel Hlubinka*	*Peterson*

Riccardo De Bin (University of Oslo)
On the equivalence between conditional and random-effects likelihoods in exponential families

Marco Loog (Delft University of Technology and University of Copenhagen)
Missing data and the maximum contrastive pessimistic likelihood

Leonora Pahirko (University of Latvia)
Empirical likelihood method for two-sample censored data

Janis Valeinis (University of Latvia)
Empirical likelihood for some robust methods

15:30-16:00	Coffee break	
16:00-17:30	**I7** Applications in spatial and spatio-temporal statistics *Organizer: Johan Lindström* *Chair: Sara Sjöstedt de Luna*	*Struve*

Henrike Häbel (Natural Resources Institute Finland, Luke) *From trees per hectare to nanoparticles: How Gibbs point processes model interaction in various scenarios*

Adam Lund (University of Copenhagen)
Estimation for dynamical spatio-temporal array models

Johan Lindström (Lund University)
Spatial reconstruction of forest fires

16:00-17:30	**I12** Actuarial mathematics *Organizer: Mogens Steffensen* *Chair: Kalev Pärna*	*Baer*

Mogens Steffensen (University of Copenhagen)
Pension saving decision making under lifetime and investment uncertainty

Jeffrey Collamore (University of Copenhagen)
Rare event simulation for GARCH(p,q) processes and related matrix recursive sequences

Enrico Biffis (Imperial College London)
Health insurance, portfolio choice, and retirement incentives

16:00-17:30	**C11** Miscellaneous topics in statistics *Chair: Janis Valeinis*	*Peterson*

Kajsa Møllersen (The Arctic University of Norway)
Statistics without mathematics

Tom Britton (Stockholm University)
Statistical challenges when analysing emerging epidemic outbreaks

Per Westerlund (KTH Royal Institute of Technology)
Prediction of high current for thermography in maintenance of electrical networks

Søren Højsgaard (Aalborg University)
Bayesian networks with likelihood evidence in R

19:00	Conference dinner (Building of the Estonian Students Society, J. Tõnissoni 1)

Friday, June 29

9:00-11:00	Keynote lectures *Chair: Dietrich von Rosen*	*Struve*

Hermann Thorisson (University of Iceland)
On the modified Palm version

~~**Tõnu Kollo** (University of Tartu)~~
~~*A journey from multivariate normality to skewed data models*~~

Michael Sørensen (University of Copenhagen)
Simulation of diffusion bridges and estimation for stochastic differential equations

11:00-11:30	Coffee break	
11:30-13:00	**I5** Recent advances in confidence distributions and fiducial inference *Organizer: Céline Cunen* *Chair: Pauliina Ilmonen*	*Struve*

Céline Cunen (University of Oslo)
II-CC-FF – combination of information beyond meta-analysis

Nils Lid Hjort (University of Oslo)
Predictions and confidence

Jonathan Williams (University of North Carolina at Chapel Hill)
Non-penalized variable selection in high-dimensional settings via generalized fiducial inference

11:30-13:00	**C12** Random fields and spatial modelling *Chair: Johan Lindström*	*Baer*

Lina Dreižienė (Vilnius University and Klaipeda University)
Linear discriminant analysis of spatial Gaussian data

Eirik Myrvoll-Nilsen (The Arctic University of Norway)
Modelling global surface temperatures in terms of climate forcing and a long-memory stochastic process

Sigrunn Holbek Sørbye (The Arctic University of Norway)
Careful prior specification avoids incautious inference for log-Gaussian Cox point processes

Ivar Simonsson (Chalmers University of Technology and Gothenburg University)
Exact inference on Bayesian networks including gamma distributed variables

11:30-13:00	**C13** Non-parametric statistics *Chair: Annika Tillander*	*Peterson*

Daniel Hlubinka (Charles University)
Localization of halfspace depth

Martin Kroll (Ecole Nationale de la Statistique et de l'Administration Économique)
Rate optimal estimation of quadratic functionals in inverse problems with partially known operator

Rolf Larsson (Uppsala University)
Confidence intervals for ranks

Natalia Stepanova (Carleton University)
On application of weighted Kolmogorov-Smirnov statistics to the problems of signal detection and classification in sparse models

13:00-13:15	Closing	*Struve*

Posters

S.- E. Walker, **N. L. Hjort** *Focused model selection and inference using robust estimators with a nonparametric alternative*

N. Ahlgren, P. Catani *Practical problems with tests of cointegration rank with strong persistence and heavy-tailed errors*

S. Hunanyan, M. Roos, H. Rue *Prior sensitivity quantification: To scale, or not to scale, that is the question*

C.-B. Li, J. Tyrcha, H. Nguyen Thu *Time-dependent transfer entropy*

F. V. Mikkelsen, N. R. Hansen *Network estimation in ordinary differential equation systems*

M. J. Ali, K. Pärna *Ruin probability for phase-type distributed claims*