



# NORDSTAT 2023 GOTHENBURG

**19-22 June 2023**

<https://nordstat2023.org/>



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**DOCUMENT VERSION 17 June 2023**



**CHALMERS**



**UNIVERSITY OF GOTHENBURG**

## Foreword

There are many people and organizations that we, the Organizing Committee, wish to thank for the setting-up of NORDSTAT 2023.

Firstly, we would like to thank all the 300 participants, and the 173 oral speakers and 43 poster presenters that enriched the conference with their work. Thank you for sharing your research with us!

We cannot but be very grateful to the Scientific Committee (see next page) chaired by Professor Mattias Villani, for the excellent work in overseeing the quality of the scientific program, for selecting themes for the invited sessions and their sessions organizers, and for the difficult but necessary work of scrutinizing and selecting the many contributed talks and posters. Communication with all of you has been a pleasure and we thank you very much for your service.

We thank the organizers of the 18 invited sessions for allowing the conference to benefit from the presence of so many excellent scholars.

We thank our conference secretariat MEETX for continuous advice and professional support before and during the conference: in particular, we thank the MEETX project responsible Maria Lindbäck, Marie Eriksson, Pärnilla Thompson and Nick Witthall.

We thank the NORDSTAT support team formed by PhD students from the Department of Mathematical Sciences at Chalmers and the University of Gothenburg (see next pages), for their indispensable help in setting up many logistics, IT supervision at the many parallel sessions, and for their enthusiasm.

We are grateful for generous funding from: AstraZeneca, Chalmers AI Research Centre (CHAIR), the Royal Society of Arts and Sciences in Gothenburg, the Swedish Statistical Society, the Wilhelm and Martina Lundgren's Science Foundation.

Thanks to the board of the Scandinavian Journal of Statistics (SJS) for sponsoring the SJS lecture and to the Swedish Statistical Society (SSS) for sponsoring the SSS Lecture.

We thank the City of Gothenburg for generously hosting the Welcome Reception.

Thanks to Springer for donating books used e.g. as prizes.

We thank the many colleagues at Chalmers and University of Gothenburg that have generously provided time and expertise: (in alphabetic order) communications officer Anneli Andersson, IT officer Ulf Andersson, administrator Marie Kühn, administrator Lisellote Fernström, administrator Jeanette Montell-Westerlin, financial officer Ai-Linh Nguyen.

We thank our colleagues Professor Peter Jagers and Professor Sergey Zuev for precious advice.

We thank AV-Service at Chalmers and especially Sebastian Pousette and Nikola Velijanowski for IT advice and support.

Finally, we thank the chair of the NORDSTAT 2021 organizing committee Prof. Sigrunn Holbek Sørbye, for generous advice whenever requested.

Sincerely,

The NORDSTAT 2023 Organizing Committee

**Organizing Committee** (all at Dept. Mathematical Sciences, Chalmers and the University of Gothenburg)

Umberto Picchini (committee chair)

Setta Aspström

Marina Axelson-Fisk

Ottmar Cronie

Johan Jonasson

Rebecka Jörnsten

Annika Lang

Holger Rootzen

Serik Sagitov

Moritz Schauer

Aila Särkkä

### Scientific Committee

Mattias Villani (committee chair, Stockholm University)

Krista Fischer (University of Tartu)

Annika Lang (Chalmers/University of Gothenburg)

Lasse Leskelä (Aalto University)

Umberto Picchini (Chalmers/University of Gothenburg)

Valeria Vitelli (University of Oslo)

Rasmus Waagepetersen (Aalborg University)

### **NORDSTAT 2023 Support Team** (PhD students at Dept. Mathematical Sciences, Chalmers and the University of Gothenburg)

Julia Jansson (chair of the team)	Erik Karlsson Nordling
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Isac Boström	Konstantinos Konstantinou
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Kasper Bågmark	Vincent Molin
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Oskar Eklund	Ioanna Motschan-Armen
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Erik Jansson	Selma Tabakovic
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Petar Jovanovski	Johan Ulander
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**The NORDSTAT 2023 logo was designed by Moritz Schauer.**

**NORDSTAT 2023 acknowledges the financial support by:**

AstraZeneca

Chalmers AI Research Centre (CHAIR)

the Royal Society of Arts and Sciences in Gothenburg

the Swedish Statistical Society

## Wilhelm and Martina Lundgren's Science Foundation



The Welcome Reception is hosted in collaboration with the City of Gothenburg.



**City of  
Gothenburg**

## Maps and addresses

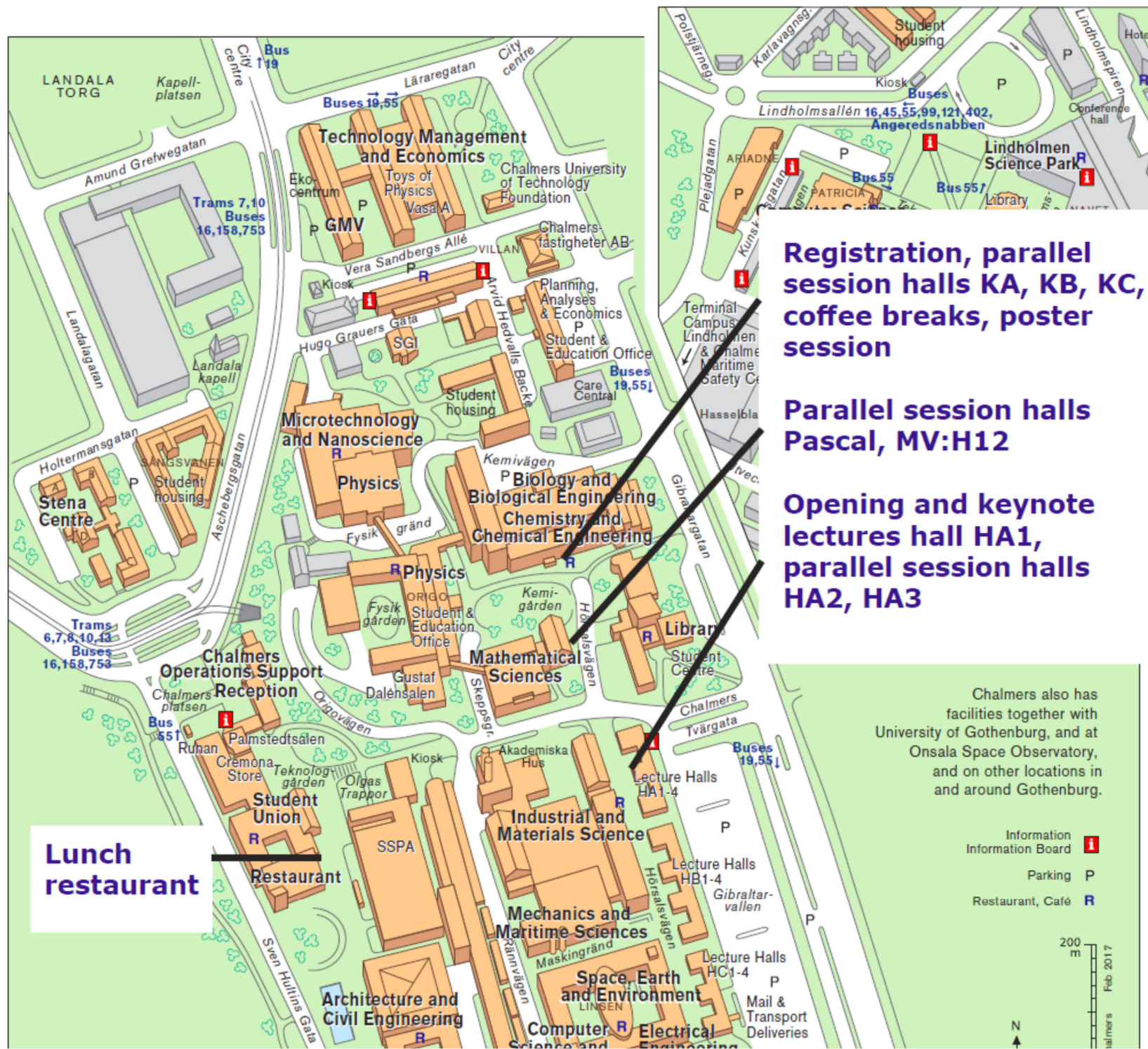
Conference check-in: Kemigården 4, Chalmers Campus Johanneberg

Welcome Reception (June 19 at 19.30): Universitetsplatsen 1, University of Gothenburg Vasaparken

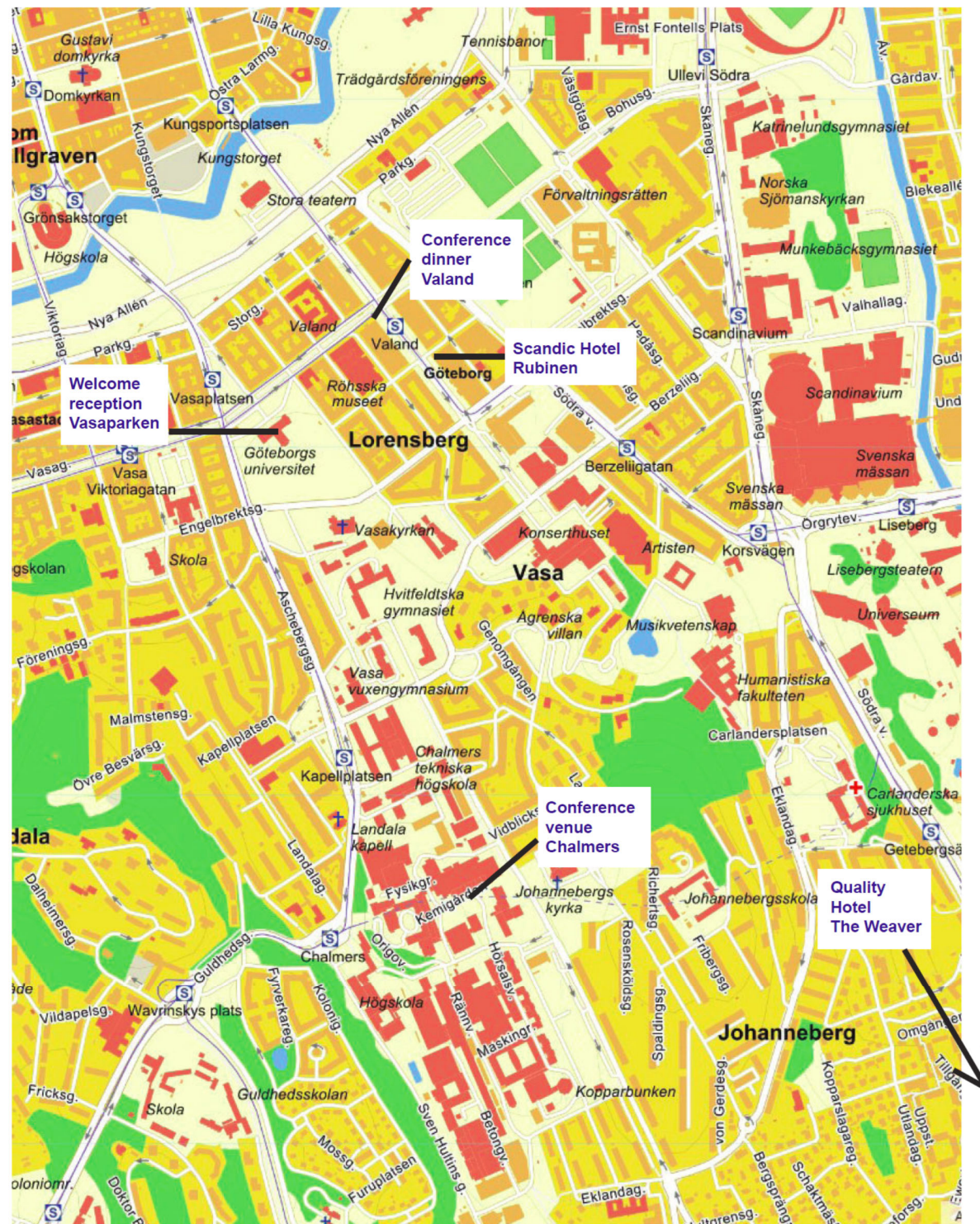
Conference dinner (June 21 at 19.00): Vasagatan 41, Valand Restaurang

Scandic Rubin hotel: Kungsportsavenyn 24

Quality Hotel The Weaver: Göteborgsvägen 91







# PROGRAM

Invited sessions are denoted with an “I” and contributed sessions are denoted with a “C”. Notice the full version of the program with titles and abstracts is at the [conference page](#).

Room names are given between parentheses.

## MONDAY 19 JUNE

Opening at 13.00 in HA1-HA2

Keynote by Sofia Olhede 13.30-14.30 in HA1-HA2

Parallel sessions 15.00-16.30

I1	I2	C1	C2	C3	C4
<b>Functional data analysis (KA)</b>	<b>Percolation and related topics (KC)</b>	<b>Gaussian processes (KB)</b>	<b>Finance (Pascal)</b>	<b>Bayesian modelling (HA2)</b>	<b>AI 1 (HA3)</b>
Alessia Pini Vaidotas Characiejus Anton Rask Lundborg	Nina Gantert Daniel Ahlberg Erik Broman	Louise Kimpton Henrik Bengtsson Sahoko Ishida	Vilhelm Niklasson Erik Lindström Alexander Herbertsson	Javier Aguilar Aliaksandr Hubin Sofia Stroustrup Ida Scheel	Florian Frommlet Olof Zetterqvist Oskar Allerbo Chiara Amorino

## MONDAY 19 JUNE

### Parallel sessions 17.00-18.30

I3	I4	I5	C5	C6	C7
<b>Reinforcement learning (KA)</b>	<b>Stochastic differential equations (KC)</b>	<b>Computationally intensive methods in biostatistics (KB)</b>	<b>Causality (Pascal)</b>	<b>Spatial point processes 1 (HA3)</b>	<b>Special topics in Statistics 1 (HA2)</b>
Alexandre Proutiere Yassir Jedra Sadegh Talebi	Mark Podolskij  Thuan Nguyen  Jean-François Chassagneux	Eszter Lakatos Magnus Neuman Mattias Rantalainen	Maximilian Scholz Søren Wengel Mogensen Shimeng Huang Lucas Kook	Ottmar Cronie  Julia Jansson Christophe Biscio Anne Marie Svane	Krzysztof Bartoszek  Martin Schlather  Karl Sigfrid  Fredrik Lundvall Wollbraaten

**Welcome Reception 19.30-21.30 in Universitetsplatsen 1 (entrance hall of the University of Gothenburg main building).**  
*The welcome reception is kindly hosted in collaboration with the City of Gothenburg.*

## TUESDAY 20 JUNE

**Keynote by Fred Espen Benth, 9.30-10.30 in HA1-HA2**

**Parallel sessions 11.00-12.30**

I6	C8	C9	C10	C11	C12
<b>Heavy tails / Extreme values (KA)</b>	<b>Optimal design (KB)</b>	<b>Change point (HA2)</b>	<b>Bayesian computation (HA3)</b>	<b>Survival analysis (Pascal)</b>	<b>Probability (KC)</b>
Kirstin Strokorb Chen Zhou Holger Rootzen	Evangelos Evangelou Maryna Prus Henrik Imberg	Susanne Ditlevsen Per August Moen Anica Kostic Elias Erdtman	Dennis Christensen Umberto Picchini Jimmy Olsson Henri Pesonen	Thomas Matcham Céline Cunen Clara Bertinelli Salucci	Stefan Geiss Gabija Liaudanskaite Orimar Sauri

## TUESDAY 20 JUNE

### Parallel sessions 14.00-15.30

I7	I8	C13	C14	C15	C16
<b>Stochastic models for evolution (KA)</b>	<b>Multivariate Statistics (KC)</b>	<b>Functional data (Pascal)</b>	<b>Spatio-temporal models (HA2)</b>	<b>Parameter inference for SDEs (HA3)</b>	<b>Special topics in Statistics 2 (KB)</b>
Daniela Bertacchi Anton Wakolbinger Asger Hobolth	Krzysztof Podgorski Kristi Kuljus Stepan Mazur Katarzyna Filipiak	Mehdi Moradi Hiba Nassar Johan Strandberg	Christopher Dörr Malte Jahn Mike Pereira Henrik Ekström	Celia García-Pareja Predrag Pilipovic Marc Vaisband Petar Jovanovski	Matyas Barczy Torkel Erhardsson Marco Loog Denise Uwamariya

## TUESDAY 20 JUNE

### Parallel sessions 16.00-17.30

I9	I10	C17	C18	C19	C20
<b>Likelihood-free inference (KA)</b>	<b>Statistical modelling of infectious disease outbreaks (KC)</b>	<b>Spatial stats &amp; Gaussian random fields (KB)</b>	<b>AI 2 (HA2)</b>	<b>Model selection (Pascal)</b>	<b>Filtering (HA3)</b>
Solveig Engbretsen		Erik Jansson	Lars Henry Berge Olsen	Sebastian Arnold	Alessandro Mastrototaro
Luigi Acerbi	Felix Günther	John Paige	Olle Häggström	Ingrid Dæhlen	Matti Vihola
Dennis Prangle	Geir Storvik	Johan Lindström	Claudio Meggio	Ivan Hejny	Cédric Travelletti
	Ganna Rozhnova	Geir-Arne Fuglstad	Väinö Yrjänäinen	Nils Lid Hjort	Håkon Gryvill

**Poster session 17.30-19.30 in the foyer of Kemihuset (the same building where KA-KB-KC are)**



## WEDNESDAY 21 JUNE

**Keynote by Janine Illian (“Scandinavian Journal of Statistics Lecture”) 9.30-10.30 in HA1-HA2**

**Parallel sessions 11.00-12.30**

I11	I12	C21	C22	C23	C24
<b>Causal inference in complex data structures (KA)</b>	<b>Gaussian processes on networks and graphs (KC)</b>	<b>Epidemics &amp; Neuronal networks (HA3)</b>	<b>Time series (Pascal)</b>	<b>Stochastic partial differential equations (KB)</b>	<b>Random Graphs (HA2)</b>
Shuangning Li Nicola Gnecco Dominik Rothenhaeusler	Jesper Møller Joel Oskarsson Alexander Simas	Tom Britton Vasilii Goriachkin Mikhail Shubin Mohamed El Khalifi	Vytaute Pilipauskaite Chandler Ross Niklas Ahlgren Mads Stehr	Thorben Pieper Andreas Petersson Annika Lang	Joel Danielsson Tiffany Yin Yuan Lo Mindaugas Bloznelis Cecilia Holmgren



## WEDNESDAY 21 JUNE

### Parallel sessions 14.00-15.30

I13	I14	I15	C25	C26	C27
<b>Spatial point processes – modelling, estimation, and prediction (KB)</b>	<b>Random graphs and related topics (KA)</b>	<b>Stochastic Finance (KC)</b>	<b>Local methods for functional data (HA3)</b>	<b>Computational statistics (HA2)</b>	<b>Regression and applications (Pascal)</b>
Jakob Gulddahl Rasmussen Thordis Thorarinsdottir Tuomas Rajala	Svante Janson Matas Šileikis Tatyana Turova	Sigrid Källblad Giulia di Nunno Teemu Pennanen	Helle Sørensen Simone Vantini Valeria Vitelli Niels Olsen	Petter Mostad Alexander Freudenberg Max Raner Miika Kailas	Léna Gozé Szymon Urbas Ingrid Hobæk Haff Vladimir Pastukhov

**15.30-19.00 Free time (see the conference page for suggestions)**

**19.00-00.00 Conference dinner in Valand restaurant (Vasagatan 41), for those that are registered for the dinner.**

## THURSDAY 22 JUNE

**Keynote by Jonas Peters 9.30-10.30 in HA1-HA2**

**Parallel sessions 11.00-12.30**

I16	I17	I18	C28	C29	C30
<b>Learning for stochastic differential equation models (KB)</b>	<b>Probabilistic machine learning and AI (KA)</b>	<b>Random matrices (KC)</b>	<b>Spatial point processes 2 (HA2)</b>	<b>Latent variable modelling for the analysis of preference data (Pascal)</b>	<b>Special topics in Statistics 3 (HA3)</b>
Frank van der Meulen	Fredrik Lindsten	Taras Bodnar	Rasmus Waagepetersen		Gabriel Wallin
Stefan Sommer	Judith Bütepage	Alexey Onatskiy	Magnus Ekström		Per Gösta Andersson
Frank Schäfer	Pierre-Alexandre Mattei	Antoine Maillard	Konstantinos Konstantinou	Matteo Ventura	Janis Valeinis
			Diala Hawat	Ambra Macis	Christos Dimitrakakis
				Francesco Amato	
				Antonio D'Ambrosio	

**Keynote by Peter Diggle (“Swedish Statistical Society Lecture”) 14.00-15.15 in HA1-HA2**

**Poster Prizes and Closing 15.15 in HA1-HA2**

## POSTER SESSION ON 20 JUNE at 17:30: LIST OF AUTHORS

(the full list with titles and abstracts is at the [conference page](#))

Reinis Alksnis  
Kasper Bågmark  
Elizabeth Baker  
Sam Beaton  
Reza Belaghi  
Bayu Brahmantio  
Timo Braun  
Marc Corstanje  
Johan de Aguas  
Mara Delesa-Velina  
Svitlana Drin  
Oskar Eklund  
Jonas Evaeus  
Henrik Häggström  
Henrik Imberg  
Alexandra Jauhiainen  
Natoya Jourdain  
Hao Chi Kiang  
Konstantinos Konstantinou  
Vera Kvisgaard  
Rolf Larsson  
Klara Leffler  
Marie Levakova  
Karina Lilleborge  
Gustav Lindwall  
Alexander Mey  
Vincent Molin  
Philip Mostert

Ioanna Motschan  
Helga Kristin Olafsdottir  
Hannu Reittu  
Axel Ringh  
Nataliya Shchestyuk  
Andrey Shternshis  
Dana Sylvan  
Selma Tabakovic  
Johan Ulander  
Emelyne Umunoza Gasana  
Per Westerlund  
Väinö Yrjänäinen  
Shokoufa Zeinali