43rd Finnish Summer School on Probability and Statistics 2025 (in UTC+3=EEST)

	Monday 26.5	Tuesday 27.5	Wednesday 28.5	Thursday 29.5	Friday 30.5
08:00 - 09:00		08:00 – 09:00 breakfast	08:00 – 09:00 breakfast	08:00 – 09:00 breakfast	08:00 – 09:00 breakfast
09:00 - 10:00		09:15 – 10:00 Li	09:15 – 10:00 Hairer	09:15 – 10:00 Solus	09:15 – 10:00 Hairer
10:00 - 11:00		10:15 – 11:00 Li	10:15 – 11:00 Hairer	10:15 – 11:00 Solus	10:15 – 11:00 Hairer
11:00 - 12:00		11:15 – 12:00 Pagliarani	11:15 – 12:00 Solus	11:15 – 12:00 Li	11:15 – 12:00 Pagliarani
12:00 - 13:00	12:00 – 12:50 lunch / 12:50 – 13:00 opening	12:00 – 13:00 lunch	12:00 – 13:00 lunch	12:00 – 13:00 lunch	12:15 – 13:00 Pagliarani
13:00 - 14:00	13:00 – 14:30 Pagliarani				13:00 – 14:00 lunch
14:00 - 15:00		13:45 – 14:30 Pagliarani	13:45 – 14:45 Solus	13:45 – 14:30 Li	
	14:30 – 15:00 coffee	14:30 – 15:00 coffee		14:30 – 15:00 coffee	
15:00 - 16:00	15:00 – 15:45 Li	15:00 – 15:45 Solus	15:00 – 18:00 sauna by the lake (ladies first)	15:00 – 15:45 Hairer	
16:00 - 17:00	16:00 – 17:00 Li	16:00 – 17:00 Solus		16:00 – 17:00 Hairer	
	17:00 – 18:00 dinner	17:00 – 18:00 dinner		17:00 – 18:00 dinner	
			18:00 – 19:30 Summer school "gala" dinner		
	20:00 – 23:00 sauna by the lake (ladies first)	20:00 – 23:00 sauna by the lake (ladies first)		20:00 – 23:00 sauna by the lake (ladies first)	

1. Minicourses

Stochastic Dynamics, Lyapunov Exponents and Stochastic Fluids

Martin Hairer

Imperial College London and EPF Lausanne

Long range dependent noise in Stochastic Differential Equations and Stochastic Partial Differential Equations

Xue-Mei Li

Imperial College London and EPF Lausanne

McKean-Vlasov type SDEs and related PDEs: kinetic models and low-regularity coefficients

Stefano Pagliarani

Universita' di Bologna

Abstract The course aims to provide a panoramic overview of McKean-Vlasov (MKV) stochastic differential equations (SDEs), with a particular focus on models featuring degenerate noise (kinetic-type models) and low-regularity coefficients. The course is divided into three parts:

I. We introduce the class of MKV SDEs and explore their links with nonlinear Fokker–Planck equations and mean-field particle systems. We also present examples that illustrate how these connections can be exploited in both directions.

II. We give an overview of the main results in the Lipschitz setting, including strong well-posedness, propagation of chaos (PoC), and particle system simulation. Additionally, we outline some alternative numerical methods, based on analytical approximations and stochastic gradient descent.

III. We begin with examples of relevant models that involve irregular dependence on the state and/or measure variables, as well as degenerate noise. We then review key PDE techniques used in the non-Lipschitz setting and recall essential semigroup estimates in the kinetic (hypoelliptic) framework. Finally, we present recent results on well-posedness and regularity for a class of MKV SDEs with singular (distributional) drift and degenerate noise.

Graphical Models and Algebraic Statistics

Liam Solus

KTH Stockholm

2. Virtual poster presentations

With 4 minicourses this year it won't be possible to schedule contributed talks. Participants who are willing to contribute by presenting their own work, have the opportunity to do so in a "virtual" poster session. Submit title, abstract and slides of your poster presentation by using the registration form or by sending an e-mail to the organizer. The posters will be published on the summer school webpage `https://fdnss.fi/virtual-poster-sessions-2025/`, it will be fun to discuss each other posters at any time outside lectures hours.

Approximating integrals with discontinuous integrands driven by multifractional Brownian motion

Kostiantyn Ralchenko, Foad Shokrollahi and Tommi Sottinen

University of Vaasa

A Sequential Stopping Problem with Costly Reversibility

Tarmo Taipale

University of Turku

3. Participation and Accommodation fees

The participation fee (30 €) has to be paid on location in cash or by using MobilePay.

The participants who are visiting the summer school for the day and do not need accommodation, can pay on place for their lunch or dinner directly to the biological station cantine.

Those who need accommodation at Lammi biological station should register by May 10th ! The accommodation and lodging fee (depending on the number of nights and type of room) can be paid by the participants who are not sponsored by the FDNSS directly to the reception of Lammi Biological Station upon arrival, using credit or debit bank cards (cash will be not accepted). Prices for full board accommodation are for the summer school week (4 nights) are (about)

- 302.53 € in double room
- 358,69 € in single room
- 400,77 € in single room with bathroom

You are also very welcome to bring your family, don't need to pay for children under 4 years, and for 4-10 years old children pay half of the lodging price.

Participants who have been awarded on their request a FDNSS-travel grant from the summer school organization do not need to pay the accommodation fee.

4. Attending the Summer School remotely

The lectures will be recorded and broadcasted online. Online participation is free of charge. The timezone is EEST = UTC +3 and the zoom seminar link is `https://helsinki.zoom.us/j/62768359893`

5. Useful Information

VENUE:

Lammi biological station Pääjärventie 320
16900 Lammi, Finland
phone +358-(0)9 191 40733
fax +358-(0)9 191 40746

The nearest towns are Hämeenlinna (about 45 km) and Lahti (about 40 km), from which there are frequent bus connections to Lammi, see matkahuolto, onnibus. When you reach the bus stop in Lammi, please feel free to call Dario (the organizer) at the phone number +358503754069 , so that hopefully we can pick you up by car from the nearest bus-stop, which is Kirkkokallio, some 3 km away. If you really like the idea you could also take your bicycle with you on the train and cycle for only 31 km to Lammi biological station from the closest railway station, which is Turenki on the Hämeenlinna side.

IMPORTANT ! For those of you arriving to the Lammi Biological Research Station already on sunday 25.5:

The reception office is closed on sundays. You shall enter the dormitory (building 2 on the map, wing B) by using the door code which will be sent to you. Inside you will find on a table the keys of your room.

For those staying in Lammi until the end of the summer school, on friday 30.5 we shall empty our rooms by 10 am.

Whatsapp group By using the link `https://chat.whatsapp.com/B5oLRTApnOl4341DptM05D` you can join the whatsapp group of the summer school to find information about the summer school shared by fellow participants, like travel plans to Lammi.

Website `https://fdnss.fi/43rd-finnish-summer-school-on-probability-and-statistics/`

Wi-Fi connection at Helsinki University facilities two Wi-Fi networks are available, eduroam and HelsinkiUni Guest with password *uniguest*

Accommodation in Helsinki before/after the summer school We suggest the Unihome university residence in Helsinki, booking from their website `https://unihome.fi/en/properties/toolo-towers` use the code UNIRATE to get reduced university fees. Of course it should be plenty of other convenient alternatives around Helsinki.

Free time activities The biological research station is surrounded by forest and it is next to a lake. Many activities are possible for relaxing during free time, cycling, rowing , swimming in the lake (bring your swim suit!), fishing, sauna, walking / jogging in the forest, table-tennis, and there is also a volleyball court and a frisbee-golf course.
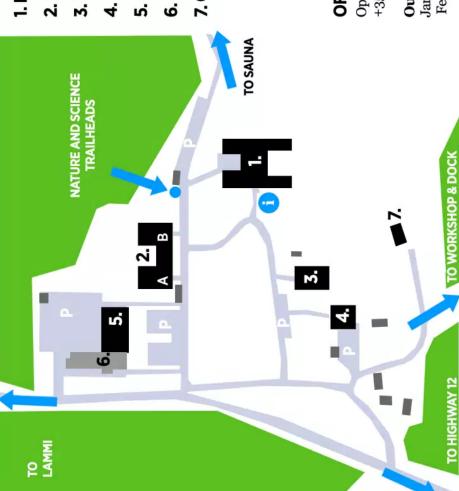
Let's hope that we will have nice summer weather, you can check the local weather forecast here.

Welcome to Lammi !

6. Preliminary List of Participants

Name	Email	University	Department
Petr Babin	petr.babin@helsinki.fi	University of Helsinki	Data Science
Leonardo Bardi	leonardo.bardi@mathematik.tu-chemnitz.de	TU Chemnitz Department of Statistics	
Yosra Barkaoui	barkaoyo@uwasa.fi	University of Vaasa	Department of Mathematics
Kari Eloranta	kari.v.eloranta@gmail.com	Univ. of Helsinki	Dept. of Mathematics and Statistics
Dario Gasbarra	dario.gasbarra@uwasa.fi	University of Vaasa	Dept. of Mathematics and Statistics
Stefan Geiss	stefan.geiss@jyu.fi	University of Jyväskylä	Department: Mathematics and Statistics
Martin Hairer	martin.hairer@epfl.ch	Imperial College London and EPF Lausanne	Dept. of Mathematics
Eetu Halme	eetu.halme@helsinki.fi	University of Helsinki	Mathematics and Statistics
František Hendrych	hendrychfrantisek@karlin.mff.cuni.cz	Charles University	Dept. of Probability and Mathematical Statistics
Onni Hinkkanen	onni.u.i.hinkkanen@jyu.fi	University of Jyväskylä	Mathematics and Statistics
Göran Högnäs	Goran.Hognas@abo.fi	Åbo Akademi	Department of Mathematics
Ashwini Joshi	ashwini.joshi@helsinki.fi	University of Helsinki	Department of Mathematics and Statistics
Leena Kalliovirta	leena.kalliovirta@helsinki.fi	University of Helsinki	Dept. Mathematics and Statistics
Sergei Kozlukov	else+aalto@someonex.net	Aalto University	Dept. of Computer Science
Sangita Kulathinal	sangita.kulathinal@helsinki.fi	University of Helsinki	Dept. Mathematics and Statistics
Nataliia Kushnerchuk	nataliia.kushnerchuk@aalto.fi	Aalto Univerty	Mathematics and System Analysis
Petri Laarne	petri.laarne@helsinki.fi	University of Helsinki	Mathematics and Statistics
Jüri Lember	Jyril@ut.ee	Tartu University	Inst. of Mathematics and Statistics
Xue-Mei Li	xue-mei.li@imperial.ac.uk	Imperial College London and EPF Lausanne	Dept. of Mathematics
Peng Mei	tfmei@hotmail.com	Helsinki	
Stefano Pagliarani	stefano.pagliarani9@unibo.it	Universita' di Bologna	Dept. of Mathematics
Anna Pham	tpham22@wisc.edu	University of Wisconsin Madison	Mathematics
Petteri Piiroinen	petteri.piiroinen@helsinki.fi	University of Helsinki	Department of Mathematics and Statistics
Kostiantyn Ralchenko	kostiantyn.ralchenko@uwasa.fi	University of Vaasa	Department of Mathematics and Statistics
Risto Raveala	risto.raveala@helsinki.fi	University of Helsinki	Mathematics and Statistics
Alessio Rondelli	alessio.rondelli2@unibo.it	University of Bologna	Mathematics
Etienne Sebag	etienne.sebag@helsinki.fi	University of Helsinki	Department of Mathematics and Statistics
Philipp Schiller	philipp.schiller@tuni.fi	Tampere University	Mathematics Research Centre
Vincenzo Silvestri	vincenzosilvestri1@hotmail.it	Università di Roma La Sapienza	Dipartimento di matematica G. Castelnuovo
Liam Solus	solus@kth.se	KTH Stockholm	Dept. of Mathematics
Tommi Sottinen	tommi.sottinen@iki.fi	University of Vaasa	School of Technology and Innovations
Tarmo Taipale	tajotai@utu.fi	University of Turku	Department of Mathematics and Statistics
Ondřej Týbl	tyblondr@fel.cvut.cz	Czech technical university in Prague	Department of kybernetics
Jonas Tölle	jonas.tolle@aalto.fi	Aalto University	Department of Mathematics and Systems Analysis
Heikki-Pekka Varis	heikki-pekka.varis@helsinki.fi	University of Helsinki	Department of Mathematics and Statistics
Matija Vidmar	matija.vidmar@fmf.uni-lj.si	University of Ljubljana	Department of Mathematics, Faculty of Mathematics and Physics
Guanghao Zhang	guanghao.zhang@helsinki.fi	University of Helsinki	Department of Mathematics and Statistics

Lammi_station_map.jpg.webp (WEBP Image, 1200 × 750 pixels)

https://www.helsinki.fi/assets/drupal/styles/uncropped_image/s3/media-image...

1. MAIN BUILDING
2. DORMITORY (A & B WINGS)
3. HERRALA DORMITORY
4. PIIKALA DORMITORY
5. RESEARCH HALL
6. BIO-WILLAGE (NOT UH)
7. GUEST COTTAGE

OFFICE
Open Mon-Fri 9-15
+358 (0) 2941 40733

Outside office hours
Janitor +358 (0)40 835 0192
Fee for unlocking doors: 60 €

NATURE AND SCIENCE TRAILHEADS

TO SAUNA

TO LAMMI

TO WORKSHOP & DOCK

TO HIGHWAY 12