

The Mathematics of Machine Learning Workshop

Basque Center for Applied Mathematics, Bilbao, October 25th - October 28th, 2022

October 25

Tuesday

Speaker - Title	Time
Gilles Blanchard - University Paris-Saclay	09.00
Fast Rates for Prediction with Costly or Limited Expert Advice	09.55

Vladimir Kostic - Italian Institute of Technology	10.00
Learning Dynamical Systems via Koopman Operator Regression	10.55
in Reproducing Kernel Hilbert Spaces	

Coffee break	

Yoav Freund - UCSD	11.30
Online Learning and Potential Functions	12.25

Lunch - Pintxos - BCAM	

Eli Upfal - University of Brown	13.30
A Theory of Weak-Supervision and Zero-Shot Learning	14.25

Peyman Mohajerin Esfahani - Delft University of Technology (TU Delft)	14.30
The Role of Convexity in data-Driven Decision-Making	15.25

Lunch Time

12:30 - 13:30

October 26

Wednesday

Speaker - Title	Time
Andrés Masegosa - Aalborg University	09.00
On how PAC-Bayesian Bounds Help to Better Understand (and Improve) Bayesian Machine Learning	09.55

Sanjoy Dasgupta - UCSD	10.00
Convergence of Nearest Neighbour Classification	10.55

Coffee break	

Maxim Raginsky - University of Illinois at Urbana-Champaign	11.30
Majorizing Measures, Codes, and Information	12.25

Lunch - Second Floor - Iberdrola	

Santiago Mazuelas - BCAM	14.00
Beyond Empirical Risk Minimization	14.55

Gergely Neu - Universidad Pompeu Fabra	15.00
Generalization Bounds via Convex Analysis	15.55

Lunch Time

12:30 - 14:00

October 27

Thursday

Speaker - Title	Time
Eustasio del Barrio - Universidad de Valladolid	09.00
Nonparametric Multiple-Output Center-Outward Quantile Regression	09.55

Christoph Lampert - Institute of Science and Technology Austria	10.00
Robust and Fair Multisource Learning	10.55

Coffee break	

Krikamol Muandet - CISPA	11.30
Towards Collective Intelligence in Heterogeneous Learning	12.25

Lunch - Second Floor - Iberdrola	

Julien Mairal - Inria Grenoble	14.00
Stochastic Optimization for Large-Scale Machine Learning: Variance Reduction, Acceleration, and Robustness to Noise	14.55

Niao He - ETH Zurich	15.00
Nonconvex Min-Max Optimization: Fundamental Limits, Acceleration, and Adaptivity	15.55

Lunch Time

12:30 - 14:00

October 28

Friday

Speaker - Title	Time
Fanny Yang - ETH Zurich	09.00
Fast Rates for Noisy Interpolation Require Rethinking the Effects of Inductive Bias	09.55

Clayton Scott - University of Michigan	10.00
Hyperplane Arrangement Classifiers in Overparameterized and Interpolating Settings	10.55

Coffee break	

Peter Grunwald - CWI & Leiden University	11.30
E is the New P: the E-value as a Generic Tool for Robust, Anytime Valid Hypothesis Testing and Confidence Intervals	12.25

Carlos Améndola - Berlin Institute of Technology	12.30
Parameter Identifiability and Structure Learning for Linear Gaussian Graphical Models	13.25

Lunch - Pintxos - BCAM	

Lunch Time

13:30 - 14:30