

Journées MAS 2020

Editors' word

This special volume presents some proceedings issued from the “Journées MAS 2020” that gathered more than a hundred people. This conference is organized every two year by the MAS¹ group of the SMAI² and is aimed to provide new insights and questions on random and statistical modeling.

In 2020, the local organization had been given to the Institut Denis Poisson (Université d'Orléans-Université de Tours-CNRS UMR7013). Due to the COVID19 pandemy, the conference has been postponed to August 2021 and has been held in distancial. The theme of this edition was “Random modelization and physics” and the program of these three days was composed of :

- six one hour long plenary lectures linked to the conference theme: Béatrice de Tilière (Université Paris Dauphine) on dimer models and minimal graphs, Davide Faranda (Université Paris Saclay) on the statistical physics of extreme events, Josselin Garnier (Ecole Polytechnique) on wave propagation and imaging in random media, Amandine Marrel (CEA) on sensitivity analysis based on HSIC dependence measurements, Rémi Rhodes (Université Aix Marseille) on the Liouville model and Cristina Toninelli (Université Paris Dauphine) on the Fredrickson-Andersen 2-spin model.
- two 30-minutes plenary lectures led by the Neveu's Award winners of 2018 and 2019: Elsa Cazelles (CNRS, Institut de Recherche en Informatique de Toulouse) on data learning and optimal transport, and Léo Miolane (New-York University) on statistical estimation and spin models.
- Seventeen parallel sessions of 2 hours each. The themes – illustrating new advances in probability and statistics – were stated by both the scientific and local organization committees and the MAS group (see the list and organization on the conference website: <https://mas2020.sciencesconf.org/>).

Among this very rich and diverse program, some works will be presented here : from the plenary speakers Josselin Garnier, Davide Farranda, Cristina Toninelli and Elsa Cazelles, and from the parallel sessions

- “Functional Statistics” organized by Sophie Dabo and Anne-Françoise Yao
- “Random Trees and Applications” organized by Jean-François Delmas
- “Random Walks and Random Environments” organized by Alexis Devulder
- “Bayesian Models” organized by Zacharie Naulet
- “Robust Statistical Learning” organized by Adrien Saumard.
- “Random Matrices and Random Graphs” organized by Pascal Maillard
- “Rough Paths and SPDE” organized by Ismael Bailleul and Nicolas Marie

The “Journées MAS 2020” benefited from the support of : ERC, IUF, Université d'Orléans and CNRS. Clément Marteau and Marguerite Zani

¹Random and Statistic Modeling

²French Society of Applied and Industrial Mathematics