EL MEHDI HARESS

Personal website

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EDUCATION

PhD - Paris-Saclay University, Gif-sur-Yvette.   *2021 - ongoing*
Numerical approximation of stochastic partial differential equations with singular drift.
Supervised by: *Ludovic Goudenège*[1] *and Alexandre Richard*[2]

M2 Master "Mathematics of randomness" - Paris-Saclay University, Gif-sur-Yvette. *2020 - 2021*
Probability and statistics.
Relevant courses: *High-dimensional probability and statistics, Malliavin Calculus*

CentraleSupélec - Paris-Saclay University - Gif-sur-Yvette,   *2017 - 2021*
Major in Applied mathematics.
Relevant courses: *Stochastic partial differential equations, Statistics, Théorèmes Limites*

Preparatory classes - Lycée Pierre de Fermat, Toulouse.   *2015 - 2017*
MPE (Math and physics) option in second year.

High-school - Groupe Scolaire Berrada - Casablanca.   *2012 - 2015*
Science major.

PREPRINTS

Numerical approximation of the stochastic heat equation with a distributional reaction term, *arXiv:2405.08201* (under revision), joint work with Ludovic Goudenège and Alexandre Richard. *2024*

Numerical approximation of stochastic differential equations with distributional drift, *arXiv:2302.11455* (under revision), joint work with Ludovic Goudenège and Alexandre Richard.   *2023*

Long time Hurst regularity of fractional SDEs and their ergodic means, *arXiv:2206.06648* (under revision), joint work with Alexandre Richard.   *2023*

PUBLICATIONS

Estimation of several parameters in discretely-observed Stochastic Differential Equations with additive fractional noise, *Statistical Inference for Stochastic Processes*, joint work with Alexandre Richard.   *2024*

Spectral risk-based learning using unbounded losses, *International Conference on Artificial Intelligence and Statistics, 1871-1886*, joint work with Matthew Holland.   *2022*

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[1](Ludovic.Goudenege@math.cnrs.fr), Univ. Paris-Saclay, Fédération de mathématiques de CentraleSupélec, CNRS FR-3487

[2](Alexandre.Richard@centralesupelec.fr), Univ. Paris-Saclay, CentraleSupélec, Laboratoire MICS et CNRS FR-3487.

Learning with risk-averse feedback under potentially heavy tails, *International Conference on Artificial Intelligence and Statistics, 892-900*, joint work with Matthew Holland.   2021

Estimation of all parameters in the fractional Ornstein–Uhlenbeck model under discrete observations, *Statistical Inference for Stochastic Processes 24, 327-351*, joint work with Yaozhong Hu. *2021*

SELECTED TALKS

Numerical approximation of the stochastic heat equation with a distributional reaction term, *SPDevent*, Bielefeld.   *2024*

Numerical approximation of the stochastic heat equation with a distributional reaction term, *Les probabilités de demain*, Paris.   *2024*

Tamed-Euler scheme for SDEs with distributional drift, *Stochastic Dynamics and Stochastic Equations*, Lausanne. (poster)   *2024*

Numerical approximations of SDEs and SPDEs with distributional drift, *Colloque Jeunes Probabilistes et Statisticiens*, Ile d'Oléron.   *2023*

Numerical approximations of SDEs and SPDEs with distributional drift, *GDR TRAjectoires RuGueuses*, Paris Dauphine.   *2023*

Tamed-Euler scheme for SDEs with distributional drift, *International Conference on Malliavin Calculus and Related Topics*, Luxembourg. (poster)   *2023*

Tamed-Euler scheme for SDEs with distributional drift, *Numerical Analysis of Stochastic Partial Differential Equations*, Eindhoven. (poster)   *2023*

Numerical approximations of SDEs with distributional drift, *Congrès Jeunes Chercheurs en Mathématiques et leurs Applications*, Calais.   *2022*

Numerical approximations of SDEs with distributional drift, *SPDevent*, Bielefeld.   *2022*

Estimation of several parameters in discretely-observed Stochastic Differential Equations with additive fractional noise, *Numerical Analysis of Stochastic Partial Differential Equations 2022*, Marseille. (poster)   *2021*

Learning with risk-averse feedback under potentially heavy tails, *International Conference on Artificial Intelligence and Statistics*, online. (poster)   *2021*

WORKSHOPS

Regularisation by noise., Paris Dauphine.   *2022-Ongoing*

Regularisation by noise, Université Côte d'Azue, Nice.   *2024*

TEACHINGS

Oral examiner for preparatory class, *Lycée Chaptal.*   *2022-2024*

Teaching assistant. *Convergence, Integration and Probability at CentraleSupélec.*   *2022 - 2023*

Teaching assistant. *Stochastic finance and risk modeling at CentraleSupélec.*   *2022 - 2023*

Teaching assistant. *Partial differential equations at CentraleSupélec.*   *2021 - 2023*

Tutoring. *First year math students at CentraleSupélec*   *2017 - 2023*

PROJECTS

Managing tutoring classes. *Debriefing math tutors at CentraleSupélec.*   *2023 - 2023*

Member of the organising committee of the CJC-MA 2023: *Le Congrès des Jeunes Chercheurs en Mathématiques et Applications.*   *2023*

SKILLS

Programming
Python, Matlab, R.

Languages
Arabe : Mother tongue, **French** : Bilingual, **English** : Fluent, **Japanese** : Beginner.