

# Doctoral Workshop on Decision Mathematics and Statistics

Thursday, 8th June 2023

**Organizing Committee:** Jérôme Bolte, Abdelaati Daouia, Sébastien Gadat

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**09:55 – 10:00 Introduction by Stéphane Villeneuve**

**10:00 – 11:00 Session 1: Machine learning, Statistics - Chairman: Olivier Faugeras**

**10:00 – 10:30 Lukas Dargel**

"On the link between Multiplicative Competitive Interaction models and Compositional Data regression with a total"

**10:30 - 11:00 Philipp Koch**

"Using data on famous individuals to learn unknown historical GDP per capita levels"

**11:00 - 11:30 Break**

**11:30 - 12:30 Session 2: Machine learning, Statistics - Chairwoman: Ekaterina Voltchkova**

**11:30 - 12:00 Joseph Hachem**

"A de-randomization argument for estimating extreme value parameters of heavy tails"

**12:00 - 12:30 Ngoc Tâm Lê**

"Nonsmooth implicit differentiation for machine learning"

**12:30 - 14:00 Lunch break**

**14:00 - 15:00 Session 3: Games, Optimization, Statistics - Chairman: Adrien Blanchet**

**14:00 - 14:30 Estelle Medous**

"Optimal Weights for double Many-To-One Generalized Weight Share Method"

**14:30 - 15:00 Etienne De Montbrun**

"Certified Multi-Fidelity Zeroth-order Optimization"

**15:00 Conclusion**



*30 mns are devoted to each presentation: 25 mns for the presentation and 5 mns for the discussion with the floor*