



Séminaire conjoint avec / Joint Seminar with
Chaire de recherche SCALE AI sur les chaînes d'approvisionnement pilotées
par les données / SCALE-AI Chair in Data-Driven Supply Chains

SCALE AI

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OVERVIEW OF DERIVATIVE-FREE OPTIMIZATION

Abstract: In this seminar, we review the field of Derivative-Free Optimization (DFO) to a non-expert audience. We first picture what kind of problems DFO addresses, with a focus on the important subcase of DFO named Black-Box Optimization (BBO). Examples of important practical BBO problems are provided. Then, we review some classical DFO techniques from the literature. By comparing their strengths and weaknesses, we observe the trends that drive the growth of DFO. Finally, from these observations, we list some advanced topics and discuss some open questions which may contribute to shape the future of DFO.

Bio : A Pierre-Yves Bouchet is a postdoctoral researcher supervised by Prof. Thibaut Vidal (Scale-AI and CIRRELT). He holds a MScA and a PhD in Derivative-Free Optimization (DFO) from Polytechnique Montreal and GERAD. His past research contributed to the theory of discontinuous DFO, to structure-aware DFO, and to stochastic DFO. His current research aims to connect DFO techniques with concerns from Machine Learning.

JEUDI / THURSDAY

26 septembre 2024, 14 h
September 26th 2024, 14:00

Pavillon André-Aisenstadt
Salle / Room 5441

Ouvert à tous / Open to all

Responsable / Organizer
Thibaut Vidal