



MASTER 2nd year 2022-2023
M2MO Random modelling, Finance & Data science

Course 1: statistics & random modelling in finance
 Course 2: Data Science



Partner Institutions



FUNDAMENTAL COURSES

S. Péché	Stochastic calculus & diffusion models	G. Giacomin	Markov Chains
S. Delattre	Basics of Data modeling & statistical inference	A. Fischer	Introduction to Machine learning

GROUP QUANTITATIVE FINANCE

S. Crépey	Derivatives modelling
B. Bruder	Financial products
H. Pham	Stochastic control in finance
O. Guéant	Algorithmic trading
B. Bruder	Quantitative assets management
S. Crépey	XVA analysis
Z. Grbac	Advanced modelling in interest rate
M.C. Quenez	Nonlinear methods in finance

GROUP DATA SCIENCE

S. Cléménçon & P. Mozharovskiy	Statistical learning
G. Garrigos	Optimization for learning
K. Tribouley	Data science projects
M. Abdel-Sayed & L. Massouliard	Data science & statistics of industry
F. Rossi	Graphical models for machine learning
J. Lussange	Introduction to reinforcement learning
I. Giulini	Deep learning

GROUP EMERGING MARKETS & TECHNOLOGIES

P. Gruet	Energy markets
P. Tankov, T. Roncalli	Green finance
A. Jacquier, M. Jeunesse	New technologies in finance

GROUP STATISTICS & MACHINE LEARNING IN FINANCE

J.M. Bardet	Financial time series
A. Gloter	Statistics of diffusion
J.Y. Audibert	Prediction & sequential investments
E. Löcherbach	Point processes & applications in finance
H. Pham, J.D. Fermanian	Machine Learning for finance

GROUP RISKS IN FINANCE

H. Pham, B. Hassani	Risks: regulation, measure & management
J.D. Fermanian	Copulas & financial applications

GROUP NUMERICAL & COMPUTATIONAL METHODS

J-F. Chassagneux	Monte Carlo methods
Y. Achdou, O. Bokanowski	PDE & numerical methods
J.F. Chassagneux	Advanced probabilistic numerical methods in finance

GROUP COMPUTER SCIENCE

O. Carton	C++
S. Souchet	Software in statistics

REQUIRED LEVEL : Master 1 with strong mathematical background, Engineering school

DIRECTORS: Jean-François CHASSAGNEUX, Huyên PHAM (Université Paris Cité), Eva LOCHERBACH (Paris 1)

WEBSITE: <https://masterfinance.math.univ-paris-diderot.fr>

REGISTRATION : website E-Candidat, <https://masterfinance.math.univ-paris-diderot.fr/index.php/infos>

