



MASTER 2nd year 2024-2025
M2MO Random modelling, Finance & Data science

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



Partner Institutions



FUNDAMENTAL COURSES

C. Labbé	Stochastic calculus & diffusion models	N. Cunéo	Markov Chains
C. Lévy-Leduc	Data modeling & statistical inference	A. Fischer	Introduction to Machine learning

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

GROUP DATA SCIENCE	
S. Cléménçon, E. Chautru	Statistical learning
G. Garrigos	Optimization for learning
C. Lévy-Leduc	Data science projects
M. Abdel-Sayed, L. Massoulard	Data science & statistics of industry
A. Celisse	Modern approaches for dimension reduction
S. Delattre	Introduction to reinforcement learning
I. Giulini	Deep learning
B-E. Chérif Abdellatif	Statistics in high dimension

GROUP EMERGING MARKETS & TECHNOLOGIES	
P. Gruet	Energy markets
P. Tankov, T. Roncalli	Green finance
L. Bertucci	FinTech
A. Jacquier	Quantum Computing in finance

GROUP STATISTICS & MACHINE LEARNING IN FINANCE	
J.M. Bardet	Financial time series
A. Gloter, A. Kebaier	Statistics of processes for finance
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	
N. Frikha, 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

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, Stéphane CREPEY (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>

