

MASTER 2 - MATH

MATHÉMATIQUES APPLIQUÉES ET THÉORIQUES

ANALYSIS

Introduction to non linear elliptic PDEs

R. Monneau and É. Séré

Introduction to evolution PDEs

S. Mischler

Continuous optimization

A. Chambolle

Introduction to control theory

D. Bresch-Pietri

Spectral theory and variational methods

É. Cancès and M. Lewin

Variational problems and optimal transport

G. Carlier

Introduction to hyperbolic systems of conservation laws

O. Glass

Spectral geometry: isoperimetric inequalities and shape optimization

I. Mazari-Fouquer

PROBABILITY

Stochastic calculus

M. Hoffmann

Limit theorems and large deviations

J. Poisat and F. Simenhaus

Continuous-time Markov processes

J. Salez

Random walks and random media

N. Forien and F. Simenhaus

Determinantal processes, random matrices and hyperuniformity

R. Lachièze-Rey

Integrable probability and the KPZ universality class

G. Barraquand

Random interacements & Gaussian free field

A. Jego

Introduction to statistical mechanics

B. de Tilière and E. Archer

Concentration of measure and related topics

D. Chafaï

INTERFACE ANALYSIS / PROBABILITY

Stochastic Control

P. Bergault

Entropy methods and functional inequalities

É. Bouin, A. Frouvelle and J. Dolbeault

Analysis in spaces of measures and mean field control/games

C. Bertucci

Finite difference and Monte-Carlo methods for PDEs

L. Laguzet and G. Legendre

Rough paths and SDE

L. Zambotti

STATISTICS AND LEARNING

High dimensional statistics

V. Rivoirard

Bayesian Statistics

J. Rousseau

Dimension Reduction and Manifold Learning

E. Aamari

Introduction to generative models with flows and diffusions

E. Vanden-Eijnden

DYNAMICAL SYSTEMS AND GEOMETRY

Introduction to dynamical systems

J. Féjoz and A. Florio

Classical gravitation and celestial mechanics

G. Boué

Lie Groups, Lie algebras and representations

O. Schiffmann

Differential geometry and gauge theory

H. Auvray

Dynamics of gravitational systems

J.-P. Marco

MINOR IN PHYSICS

In collaboration with the ICFP
Master in Physics of ENS.

SCIENTIFIC COORDINATORS

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SCHOLARSHIPS
AND FURTHER
INFORMATION

