

ANNEX II: Study Programme “Paris Dauphine to Padova – 4 semesters”

YEAR / SEMESTER	SEAT	TEACHING	ECTS CREDITS	ITALIAN SSD / DISCIPLINE	TPOLOGY (ITALIAN RULES)	AREA
1° / I	PARIS DAUPHINE	GEOMETRY AND DIFFERENTIAL EQUATIONS	4	MAT/03	CHARACTERISING	
		FUNCTIONAL ANALYSIS	8	MAT/05	CHARACTERISING	
		OPTIMIZATION	4	MAT/05	CHARACTERISING	
		DISCRETE PROCESSES	4	MAT/06	CHARACTERISING	
		CONTROL OF MARKOV CHAINES	4	MAT/06	CHARACTERISING	
		MONTE-CARLO	4	MAT/08	CHARACTERISING	
		ENGLISH	2		OTHER	
			30			

1° / II	PADOVA	TEACHINGS IN THE FOLLOWING LIST: <ul style="list-style-type: none"> • CALCULUS OF VARIATIONS • ADVANCED ANALYSIS • DIFFERENTIAL EQUATIONS • HARMONIC ANALYSIS • STOCHASTIC METHODS FOR FINANCE • OPTIMIZATION FOR DATA SCIENCE • STOCHASTIC DIFFERENTIAL EQUATIONS WITH NUMERICS • DYNAMICAL SYSTEMS • HAMILTONIAN MECHANICS • NUMERICAL METHODS FOR DIFFERENTIAL EQUATIONS 	14	MAT/05 MAT/06 SECS-S/06 MAT/09 MAT/07 MAT/08	COMPLEMENTARY	
		FREE EXAMS	8		FREE	
		SEMINARS	2		OTHER	
		PREPARATORY EXAM FOR THE MASTER THESIS	6		THESIS	
			30			

2° / I	PARIS DAUPHINE	INTRODUCTION TO NON LINEAR PDES	4	MAT/05	CHARACTERISING	
		INTRODUCTION TO EVOLUTION PDES	8	MAT/05	CHARACTERISING	
		STOCHASTIC CALCULUS	4	MAT/06	CHARACTERISING	
		NUMERICAL METHODS FOR PDES AND CONTROL	4	MAT/08	CHARACTERISING	
		TEACHINGS IN THE FOLLOWING LIST: <ul style="list-style-type: none"> • MONTE-CARLO AND DETERMINISTIC METHODS FOR PARABOLIC EQUATIONS • STOCHASTIC CONTROL • JUMP PROCESSES • HAMILTONIAN DYNAMICAL SYSTEMS • INTRODUCTION TO CELESTIAL AND HAMILTONIAN MECHANICS 	10	MAT/06 MAT/07 MAT/08	COMPLEMENTARY	
			30			

2° / II	PADOVA	PREPARATORY EXAM FOR THE MASTER THESIS	6		THESIS	
		MASTER THESIS	24		THESIS	
			30			