Organisation des enseignements par semestres PMM

S1

Codes	Teaching Unit	Course Title	Credit(s)
MEQ2101	Nonrelativistic Quantum Mechanics	Nonrelativistic Quantum Mechanics	4
ANF2102	Functional Analysis	Functional analysis	6
TOP2103	Topology	Topology	4
DLH2104	Differential geometry	Differential geometry of curves and surfaces and manifold	4
		Lie groups and Lie algebras	
CTH2105	Mathematical Statistics	Mathematical Statistics	4
MOC2106	Méthodes d'optimisation et Convexité	Méthodes d'optimisation et Convexité	4
NPN2107	Numerical Analysis and programming	Numerical Analysis Programming and software	4
NPN2108	Anglais	Anglais	4

S2

Codes	Teaching Unit	Course Title	Credit(s)
CQF2201	Field theories	Classical field theory Quantum field theory	4
APR2202	Advanced Probability	Advanced Probability	4
MMP2203	Mathematical methods of physics	Complex analysis	4
		Orthogonal polynomials and special functions	
		Matrix and tensor analysis	
DFA2204	Distributions and Fourier Analysis	Distribution and Sobolev spaces	4
SIN2205	Statistics Inferential	Statistics Inferential	4
MTI2206	Measure theory and integration	Measure theory and integration	4
ELD2207	Electrodynamics	Classical and Quantum Electrodynamics	4
EPI2208	Introduction to law	Introduction to law	2

S3

Codes	Teaching Unit	Course Title	Credit(s)
SPE2301	Partial Differential Equations(PDEs)	Nonlinear partial differential equations	4
		Control theory and Controlability of Dynamical systems	
		Ondes dissipatives	
CTH2302	Relativité Géneral et Cosmologie	Relativité Géneral et Cosmologie	3
IAR2303	Intelligence Artificielle	Intelligence Artificielle	4
HAN2304	Harmonic analysis	Harmonic analysis	3
LHA2305	Lie Algebra and Hopf Algebras	Structure Theory of Lie Algebra and Representation	4
		Hopf Algebras and Quantum Groups	
GAS2306	Graphs, noncommutative and nonassociative algebraic structures	Noncommutative geometry	4
		Noncommutative probability	
		Nonassociative algebraic structures and hydrodynamical systems	
		Graphs theory and combinatorics	
QTD2307	Theorie des nombres	Quantization techniques	3
		Deformation	
TCF2308	Etats cohérents	Theory of coherent states and wavelets	3
		Frame theory	
RMW2309	Research methodology, writing and scientific communication	Research methodology Scientific writing and presentation	02

S4

WGR2310	Internship	Writing of the graduation project work: scientific content and originality of results	22
		Thesis defense	08