

MSc (487)
PSPA 1 (MCS) **MATHEMATICAL ENGINEERING**
COMPUTATIONAL SCIENCE AND ENGINEERING

	n.	CAT	SEM	SSD	COD	COURSE	CFU
1st YEAR	1	OB	1	MAT/05	95958	Real and functional analysis	8
	2	OB	1	ING-INF/05	95959	Algorithms and parallel computing	10
	3	ING	1 o 2		95962	<i>to be chosen from Group ING</i>	10
	4	MTM	2	MAT/05	95963	Advanced partial differential equations	8
	5	MA	2	MAT/08	95964	Numerical analysis for partial differential equations	10
	6	MA	2			<i>to be chosen from Group MOX</i>	10
						total	56

	n.	CAT	SEM	SSD	COD	COURSE	CFU
2nd YEAR	7	MA	1	MAT/07+MAT/08	97634	Computational fluid dynamics [C.I.]	10
	8	ING	1	ICAR/01	95962	Fluids labs	10
	9	MTM	1 o 2			<i>to be chosen from Group MTM</i>	8
	10	MTM	1 o 2			<i>to be chosen from Group MTM</i>	8
	11	SC	1 o 2			<i>to be chosen from Group FREE</i>	8
	12	SC	1 o 2			<i>to be chosen from Group FREE</i>	8
			1 o 2		97690	Final work	12
						total	64

GROUPS						
	SEM	SSD	COD	COURSE	CFU	Notes
ING	1	ING-INF/04	89195	Dinamica dei sistemi complessi	10	
	1	ING-INF/01	85930	Elettronica	10	
	1	ICAR/01	95962	Fluids Labs	10	
	1	ING-IND/10	97575	Termodinamica e processi energetici	10	
	2	ING-INF/04	96297	Model identification and data analysis	10	
MOX	2	MAT/08	95965	Advanced programming for scientific computing	10	
	2	MAT/07	97725	Mathematical and physical modeling in engineering [C.I.]	10	
MTM	1	MAT/05	95973	Discrete dynamical models	8	Activation in the a.y. 2018/19 and alternate years after
	1	MAT/05	95974	Game theory	8	
	1	MAT/07	97660	Methods and models for statistical mechanics	8	Activation in the a.y. 2017/18 and alternate years after
	1	MAT/06	95975	Stochastic differential equations	8	
	1	MAT/06	95966	Stochastic dynamical models	8	
	2	MAT/05	95963	Advanced partial differential equations	8	
	2	MAT/07	97661	Biomathematical modeling	8	
	2	MAT/05	97673	Calculus of variations	8	Activation in the a.y. 2017/18 and alternate years after
	2	MAT/08	96659	Computational modeling in electronics and biomathematics	8	
	2	MAT/03	93153	Geometria differenziale	8	Activation in the a.y. 2018/19 and alternate years after
2	MAT/09	95972	Optimization	8		
	1	ING-INF/03	95978	Audio and video signals	8	
	1	MAT/08+SECS-S/06	97667	Computational finance	8	
	1	ING.IND/16	97482	Design and analysis of experiments A	8	
	1	MAT/05	95973	Discrete dynamical models	8	Activation in the a.y. 2018/19 and alternate years after
	1	MAT/05	95974	Game theory	8	
	1	GEO/11	98637	Geophysical data processing	8	
	1	MAT/07	97660	Methods and models for statistical mechanics	8	Activation in the a.y. 2017/18 and alternate years after
	1	MAT/08+SECS-S/01	98516	Numerical and statistical methods in geosciences	10	Mutually incompatible with 95967-Applied statistics (10 cfu) and 95977-Applied statistics (8 cfu)
	1	FIS/03	97670	Plasma physics	8	

FREE	2	MAT/08	95976	Advanced programming for scientific computing	8	
	2	SECS-S/01	95977	Applied statistics	8	
	2	MAT/07	97661	Biomathematical modeling	8	
	2	MAT/05	97673	Calculus of variations	8	Activation in the a.y. 2017/18 and alternate years after
	2	MAT/08	96659	Computational modeling in electronics and biomathematics	8	
	2	ING-INF/05	97676	Economics and computation	6	
	2	ICAR/09	98512	Engineering seismology	8	
	2	FIS/01	88933	Fisica quantistica	8	
	2	MAT/03	93153	Geometria differenziale	8	Activation in the a.y. 2018/19 and alternate years after
	2	ICAR/01	98513	Groundwater hydraulics	8	
	2	SECS-S/06	95980	Mathematical finance II	8	
	2	SECS-S/06	98388	Mathematical models and methods for financial and insurance markets	8	
	2	ICAR/07+ICAR/08	51676	Meccanica computazionale per i geomateriali	8	
	2	MAT/09	95972	Optimization	8	