

## MATHEMATICS

course	SSD	Type of activity	language	hrs	credits	year of attendance	final test	optional/mandatory	curriculum	
NUMERICAL METHODS FOR TIME-DEPENDENT PDES	MATH-05/A Analisi numerica	lesson	English	24	3	1 <sup>st</sup>	yes	optional	Numerical Analysis and Mathematical Modelling	Bicocca
ALGEBRAIC GEOMETRY	MATH-02/B Geometria	lesson	English	24	3	1 <sup>st</sup>	yes	optional	Algebra and Geometry	Pavia
THE SCHRÖDINGER EQUATION: LINEAR AND NONLINEAR	MATH-04/A Fisica matematica	lesson	English	24	3	1 <sup>st</sup>	yes	optional	Mathematical Physics	Bicocca
INTRODUCTION TO LIE ALGEBRAS	MATH-02/A Algebra	lesson	English	24	3	1 <sup>st</sup>	yes	optional	Algebra and Geometry	Bicocca
MATHEMATICAL THEORIES OF LIQUID CRYSTALS	MATH-04/A Fisica matematica	lesson	English	24	3	1 <sup>st</sup>	yes	optional	Mathematical Physics	Pavia
GEOMETRIC STRUCTURES ON MANIFOLDS	MATH-02/B Geometria	lesson	English	24	3	1 <sup>st</sup>	yes	optional	Algebra and Geometry	Pavia
INVARIANT MEASURES OF STOCHASTIC PARTIAL DIFFERENTIAL EQUATIONS	MATH-03/B Probabilità e statistica matematica	lesson	English	24	3	1 <sup>st</sup>	yes	optional	Probability, Statistics and Mathematical Finance	Pavia
CELESTIAL MECHANICS	MATH-04/A Fisica matematica	lesson	English	24	3	2 <sup>nd</sup>	yes	optional	Mathematical Physics	Bicocca
REGULARITY FOR PARABOLIC EQUATIONS	MATH-03/A Analisi matematica	lesson	English	24	3	1 <sup>st</sup>	yes	optional	Mathematical Analysis	Pavia
ADVANCED TOPICS IN NONLINEAR PDES AND CONTROL THEORY	MATH-03/A Analisi matematica	lesson	English	24	3	1 <sup>st</sup>	yes	optional	Mathematical Analysis	Pavia
ADVANCED TOPICS IN PDES	MATH-03/A Analisi matematica	lesson	English	24	3	2 <sup>nd</sup>	yes	optional	Mathematical Analysis	Pavia
ADVANCED TOPICS IN CALCULUS OF VARIATIONS	MATH-03/A Analisi matematica	lesson	English	24	3	2 <sup>nd</sup>	yes	optional	Mathematical Analysis	Pavia
NUMERICAL APPROXIMATION OF PARAMETRIC PDES	MATH-05/A Analisi numerica	lesson	English	24	3	2 <sup>nd</sup>	yes	optional	Numerical Analysis and Mathematical Modelling	Pavia
HOMOLOGICAL ALGEBRA	MATH-02/A Algebra	lesson	English	24	3	1 <sup>st</sup>	yes	optional	Algebra and Geometry	Bicocca
TORIC VARIETIES	MATH-02/B Geometria	lesson	English	24	3	1 <sup>st</sup>	yes	optional	Algebra and Geometry	Bicocca
ELLIPTIC PDE'S AND HYPERSURFACE GEOMETRY	MATH-02/B Geometria	lesson	English	24	3	1 <sup>st</sup>	yes	optional	Algebra and Geometry / Mathematical Analysis	Bicocca
GEOMETRIC ANALYSIS	MATH-02/B Geometria, MATH-03/A Analisi	lesson	English	24	3	2 <sup>nd</sup>	yes	optional	Algebra and Geometry / Mathematical Analysis	Bicocca
RESTRICTED LIE ALGEBRAS AND GROUPS	MATH-02/A Algebra	lesson	English	24	3	1 <sup>st</sup>	yes	optional	Algebra and Geometry	online
ANALYSIS AND GEOMETRY IN SEVERAL COMPLEX VARIABLES	MATH-02/B Geometria	lesson	English	24	3	1 <sup>st</sup>	yes	optional	Algebra and Geometry	Bicocca
				456	57					