

ALGEBRAIC GEOMETRY 2023-2024

	DAY	TIME	WHERE	TYPE	TOPICS
LECTURE 1	3 oct	9:00	ROOM 134 (SISSA)	THEORY	Presheaves, sheaves, morphisms, constant presheaves, sheaf condition via equalisers. Examples.
LECTURE 2	5 oct	11:00	ROOM 134 (SISSA)	THEORY	Stalks, compatible germs. Surjectivity of maps of sheaves. Sheaf isomorphisms via stalks (proof). Existence of sheafification (proof). Skyscrapers. Exact sequences of sheaves.
LECTURE 3	10 oct	9:00	ROOM 134 (SISSA)	THEORY	Supports of sheaves and sections. Defining sheaves on basic open sets. Direct image, inverse image, their adjunction. Sheaves supported on a closed subset.
LECTURE 4	12 oct	11:00	ROOM 134 (SISSA)	THEORY	Locally ringed spaces, their morphisms. Immersions. Closed immersions = ideal sheaves. Zariski topology on Spec A and its quasicompactness. Closed points, closure of a subset of Spec A. “Functions” on Spec A.
LECTURE 5	17 oct	9:00	ROOM 134 (SISSA)	THEORY	Localisation of a module. Structure sheaf of Spec(A). Definition of affine schemes. Schemes. Affine varieties.
LECTURE 6	19 oct	11:00	ROOM 134 (SISSA)		
LECTURE 7	24 oct	9:00	ROOM 134 (SISSA)		
LECTURE 8	26 oct	11:00	ROOM 134 (SISSA)		
LECTURE 9	31 oct	9:00	ROOM 134 (SISSA)		
LECTURE 10	7 nov	11:00	ROOM 134 (SISSA)		
LECTURE 11	9 nov	9:00	ROOM 134 (SISSA)		
LECTURE 12	14 nov	9:00	ROOM 134 (SISSA)		
LECTURE 13	21 nov	11:00	ROOM 134 (SISSA)		
LECTURE 14	28 nov	9:00	ROOM 134 (SISSA)		
LECTURE 15	30 nov	11:00	ROOM 134 (SISSA)		
LECTURE 16	5 dec	9:00	ROOM 134 (SISSA)		
LECTURE 17	7 dec	11:00	ROOM 134 (SISSA)		
LECTURE 18			ROOM 134 (SISSA)		
LECTURE 19			ROOM 134 (SISSA)		
LECTURE 20	12 dec	9:00	ROOM 134 (SISSA)		
LECTURE 21	14 dec	11:00	ROOM 134 (SISSA)		
LECTURE 22	19 dec	9:00	ROOM 134 (SISSA)		
LECTURE 23	9 gen	9:00	ROOM 134 (SISSA)		
LECTURE 24	11 gen	11:00	ROOM 134 (SISSA)		
LECTURE 25 (PHD)			ROOM 134 (SISSA)		
LECTURE 26 (PHD)			ROOM 134 (SISSA)		
LECTURE 27 (PHD)			ROOM 134 (SISSA)		
LECTURE 28 (PHD)			ROOM 134 (SISSA)		
LECTURE 29 (PHD)			ROOM 134 (SISSA)		
LECTURE 30 (PHD)			ROOM 134 (SISSA)		