

- Faculté des sciences
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Algebraic Curves (3MT2077)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en mathématiques	Cours: 2 ph Exercice: 2 ph	Voir ci-dessous	6

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

Période d'enseignement:

- Semestre Automne

Equipe enseignante

CAMINATA Alessio, Maître Assistant (B219, alessio.caminata@unine.ch); LANDOLINA Cristina, Assistant (B207, cristina.landolina@unine.ch)

Contenu

Affine space, algebraic varieties and their associated rings (coordinate ring, local rings at points), Zariski topology, Hilbert Nullstellensatz, affine curves, projective space and projective curves, elliptic curves. If time permits other topics such as singularity theory, divisors on curves and applications to cryptography and coding theory may be treated.

Forme de l'évaluation

oral exam of 30 minutes on the content of the lectures and exercises

Documentation

Cox, Little, O'Shea - "Ideals, Varieties, and Algorithms", Fulton - "Algebraic Curves"

Pré-requis

Knowledge of linear algebra and basic algebra notions (e.g. basic field theory and rings of polynomials)

Forme de l'enseignement

Cours: 2h, TP: 2h