# Algebraic curves

| Gleb Smirnov - 14M252

| Heures (Hebdo) | 4 |
|---|---|
| Cours | 2 |
| Exercices | 2 |
| Pratique | 0 |
| Total | 56 |

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|---|---|
| Langue | anglais |
| Semestre | Printemps |
| Mode d'évaluation | Examen oral |
| Session | Juillet |
| Format de l'enseignment | |

| Cursus | Type | ECTS |
|---|---|---|
| Pas de cursus | - | - |

## Objectifs

This course gives and introduction to algebraic geometry and develops the theory of complex algebraic curves.

## Description

1. Projective space(s). Plane algebraic curves. Bezouts theorem.
2. Rational curves.
3. Algebraic curves as complex manifolds. Branched coverings. The Riemann-Hurwitz formula.
4. Line bundles and divisors on curves.
5. The RiemannRoch theorem for curves.
6. Metrics of constant negative curvature and uniformization theorem.
7. Moduli of elliptic curves.

## Divers

## Commentaires