

# Algebraic curves

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## Heures (Hebdo) 4

Cours 2

Exercices 2

Pratique 0

Total 56

Langue anglais

Semestre Printemps

Mode d'évaluation Examen oral

Session Juillet

Format de l'enseignement

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

## Objectifs

This course gives an 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 Riemann-Roch theorem for curves.
6. Metrics of constant negative curvature and uniformization theorem.
7. Moduli of elliptic curves.

## Divers

## Commentaires