

## ALGEBRAIC GEOMETRY II, MATH 533

- Course: Math 533 (Algebraic geometry II), Term 2, 2014-2015.
- Instructor: Sabin Cautis, Math 116, [cautis@math.ubc.ca](mailto:cautis@math.ubc.ca)
- Time: Tuesday and Thursday 12:30-14:00
- Location: Mathematics Annex 1102
- Course website: <http://www.math.ubc.ca/~cautis/math533/>

**Synopsis:** The first part of the course introduces the language of sheaves followed by sheaf cohomology. These are fundamental tools in algebraic geometry and subsequently leads to the study of derived categories of coherent sheaves. We develop techniques to work with and understand such categories. Along the way various examples and applications are considered.

**Textbook:** There is no required textbook but I will be teaching to some degree out of “Algebraic geometry” (by Hartshorne) and later on out of “Fourier Mukai transforms in algebraic geometry” (by Huybrechts). So it might be helpful to have some access to these.

**Homework:** There will be several assignments to help absorb the material but no exams.