

# ÉTALE COHOMOLOGY

## IM PAN, Śniadeckich 8, Room 403.

### Organizers: Przemysław Chojecki and Adrian Langer.

The aim of the workshop is the introduction into étale cohomology theory. One day before the proper workshop, on the 1st March (Thursday), there will be lectures for students and people who didn't have any or have little contact with étalness before.

### 1st March 2012 (preparatory lectures):

10.15-11.45 Jakub Witaszek: Definitions of flat, unramified, étale, smooth morphisms with examples and basic properties. Standard form of étale morphisms.

12.00-13.30 Joachim Jelisiejew: Local rings in étale topology and facts about henselian rings. Henselization.

14.30-16.00 Bartosz Naskręcki: Definitions of sites and sheaves with examples. Stalks.

#### 2nd March 2012:

10.15-11.45 Agnieszka Bodzenta: Grothendieck topologies, sheaves, examples of topologies: Zariski, étale, fppf, fpqc. Definition of étale cohomology. Exact sequence of Kummer and Artin-Schreier.

12.00-13.30 Jakub Byszewski: Local rings in étale topology. Formalism of six operations on sheaves. Galois cohomology.

14.30-16.00 Przemysław Chojecki: Cohomology groups of curves.

#### 3rd March 2012:

10.15-11.45 Adrian Langer: Fundamental group and applications.

12.00-13.30 Tomasz Maszczyk: Constructible sheaves and base change for proper morphisms.

14.30-16.00 Andrzej Weber: Poincaré duality.

\*\*\*\*\*\*

 $http://www.math.jussieu.fr/{\sim}chojecki/etale.html$