

ARXIV SEMINAR

The talks will take place on Tuesday 14h-16h in the Hilbertraum.

1. CLUSTER ALGEBRAS

Davide, Laura, Markus, Tom.

- April 18th. Markus: Introduction to cluster algebras
- April 25th. Davide: Examples and the Laurent phenomenon
- May 2nd. Laura: Classification of cluster algebras
- May 9th. Tom: The Caldero/Chapoton formula

2. KUGA-SATAKE

First sketch of the talks (Dino). Following Huybrechts “Lectures on K3 surfaces”, chapter 4.

- May 16th. Manfred: Abstract Clifford algebras and the definition of the Kuga-Satake variety of a K3 surface.
- May 23rd. Dino. The Kuga-Satake variety of certain surfaces. Examples: Abelian surfaces, Kummer surfaces and double covers of \mathbb{P}^2 ramified along six lines. Short introduction to the Weil conjectures.
- May 30th. Ariyan. Deligne’s proof of the Weil conjectures for K3 surfaces, Part 1.
- June 6th. Ariyan. Deligne’s proof of the Weil conjectures for K3 surfaces, Part 2.

3. TIMO’S CHARACTERISTIC p SUGGESTION

- June 13th. Ariyan. Finiteness of etale fundamental groups by reduction modulo p .
- June 20th. Timo. Fundamental groups of F-regular singularities via F-signature, Part 1.
- June 27th. Timo. Fundamental groups of F-regular singularities via F-signature, Part 2.

4. BARANNIKOV-KONTSEVICH

- (1) July 4. Helge/Simon/Tom. Representability of deformations of Calabi-Yau manifolds.
- (2) July 11. Helge/Simon/Tom. Canonical solutions to Maurer-Cartan equations.