

1. LECTURE 1-CYCLE COMPLEXES

- 1.1. Bloch's cycle complex.
- 1.2. Suslin homology.
- 1.3. Suslin-Friedlander complexes.
- 1.4. Comparison theorems.
- 1.5. Products.

2. LECTURE 2-CATEGORIES OF MOTIVES

- 2.1. Voevodsky's geometric motives.
- 2.2. Triangulated categories of motives.
- 2.3. The Tate subcategory of \mathcal{DM} .

3. LECTURE 3-CDGAS, HOPF ALGEBRAS AND MIXED TATE MOTIVES

- 3.1. Dg modules over an Adams graded cdga.
- 3.2. Minimal models, co-Lie algebras and co-module categories.
- 3.3. The Bloch-Kriz category.
- 3.4. Spitzweck's representation theorem.

4. LECTURE 4-TATE MOTIVES AND FUNDAMENTAL GROUPS

- 4.1. The fundamental exact sequence.
- 4.2. Polylog.
- 4.3. Towards a minimal model for $\mathbb{P}^1 \setminus \{0, 1, \infty\}$.
- 4.4. Tate motives over \mathbb{Z} -Brown's theorem.

5. LECTURE 5- π_0 AND π_1 IN \mathbb{A}^1 HOMOTOPY THEORY

- 5.1. Motivic homotopy theory.
- 5.2. Morel's connectedness theorem.
- 5.3. Morel's theorem on π_0 of the sphere spectrum.
- 5.4. $\pi_1(\mathbb{P}^1)$ and $\pi_1(\mathbb{A}^2 - \{0\})$.
- 5.5. The motivic Steinberg relation.

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