Oberseminar Zahlentheorie
und arithmetische Geometrie

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(Hannover)

How to determine the isomorphism class of a K3 surface from an automorphism

In this talk we treat the case of a non-symplectic automorphism.
As it turns out we need the following data:
1) a non-symplectic automorphism;
2) a "small" transcendental lattice (many curves);
3) an n-th root of unity ζ_n;
4) an ideal of $\mathbb{Q}(\zeta_n)$.

We shall prove this statement with the Torelli theorem and methods from lattice theory developed by McMullen and Nikulin.

As an application we give a generalization of Vorontsov's Theorem for K3 surface automorphisms.

Donnerstag, 14.04.2016, 12:00 – 13:00, a410

Alle Interessierten sind herzlich eingeladen.