Séminaire de théorie des nombres

Le 14 mars 2016 à 14h (Jussieu)

Extendability of automorphisms of K3 surfaces

Exposé de Yuya Matsumoto
(IMJ-PRG et University of Tokyo)

Résumé :

A K3 surface X (over a p-adic field K) is said to have good reduction if it admits a smooth proper model over the ring of integers of K. Assuming this, we say that a subgroup G of $\mathrm{Aut}(X)$ is extendable if X admits a smooth proper model equipped with G-action (compatible with the action on X). We show that G is extendable if it is of finite prime-to-p order and acts symplectically (that is, preserves the global 2-form of X). We also give some examples of non-extendable G.