



Oberseminar

Zahlentheorie und Arithmetische Geometrie

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“Logarithmic good reduction of cohomologically tame elliptic surfaces”

Let K be a complete discretely valued field with algebraically closed residue field of characteristic p . In general, it is known that a smooth, projective and geometrically integral variety X over K which has logarithmic good reduction over the ring of integers of K has the property that the Galois representations on the l -adic cohomology spaces of X are tamely ramified. The converse of this statement is only known to hold for very special classes of varieties over K , such as Abelian varieties (this logarithmic version of the Néron-Ogg-Shafarevich criterion is due to Bellardini-Smeets). In this talk, we shall look at analogous results for elliptic surfaces over K , assuming that $p > 3$. We give sufficient cohomological criteria for an elliptic surface over K to have logarithmic good reduction over the ring of integers of K up to birational modification; those criteria are quite similar to the usual ones for Abelian varieties. The proof uses methods in logarithmic geometry due to T. Saito. This is joint work in progress with A. Smeets.

Donnerstag, 16.01.2020
ab 12:00 Uhr, g117
Hauptgebäude der Leibniz Universität Hannover

Alle Interessierten sind herzlich eingeladen.

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