



Leibniz
Universität
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Oberseminar
Institut für Algebraische Geometrie

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The Kodaira dimension of some moduli spaces of
elliptic K3 surfaces.

Let \mathcal{M}_{2k} denote the moduli space of $U \oplus \langle -2k \rangle$ -polarized K3 surfaces. Geometrically, the K3 surfaces in \mathcal{M}_{2k} are elliptic and contain an extra curve class, depending on $k \geq 1$. I will report on a joint work with M. Fortuna and M. Hoff, in which we compute the Kodaira dimension of \mathcal{M}_{2k} for almost all k : more precisely, we show that it is of general type if $k \geq 220$ and unirational if $k \leq 50$, $k \notin \{11, 35, 42, 48\}$. After introducing the general problem, I will compare the strategies used to obtain both results. If time permits, I will show some examples arising from explicit geometric constructions.

Donnerstag, 15.10.2020

16:30 - 17:30

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Alle Interessierten sind herzlich eingeladen.