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Leibniz
Universität
Hannover

Oberseminar Zahlentheorie und arithmetische Geometrie

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(Hannover)

Fixed points and entropy of endomorphisms on simple abelian varieties

We investigate the fixed-point numbers and entropies of endomorphisms on complex tori. Motivated by an asymptotic perspective that has turned out in recent years to be so fruitful in Algebraic Geometry, we study how the number of fixed points behaves when the endomorphism is iterated.

In this talk I show that the fixed-points function can have only three kinds of behaviour, and I characterize them in terms of the analytic eigenvalues. Further, one is interested in criteria to decide of which type an endomorphism is. I will provide such criteria for simple abelian varieties in terms of the possible types of endomorphism algebras.

The gained insight into the occurring eigenvalues can be applied to questions about the entropy of an endomorphism. I will give criteria for an endomorphism to be of zero or positive entropy and answer the question whether the entropy can be the logarithm of a Salem number.

Donnerstag, 21.12.2017, 12:00 – 13:00, g117

Alle Interessierten sind herzlich eingeladen.