



Hauptvortrag/Plenary lecture

Freitag/Friday, 9:00, Wolfgang-Paul-Hörsaal

Invariant measures for multidimensional diagonalizable group actions and arithmetic applications

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We consider a certain class of concrete actions of \mathbb{R}^d for $d \geq 2$, namely actions of diagonalizable groups on locally homogeneous spaces. A basic example is the action of the group of diagonal matrices on the space of homothety classes of lattices in \mathbb{R}^{d+1} .

We will present progress in our understanding of these actions, and discuss some arithmetic applications. Entropy plays a key role in the study of these actions and in the applications.