

Gastvortrag

Freitag, 24. Mai 2013

14.15 Uhr

Seminarraum II

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**New progress in p-adic
transcendence theory**

Abstract

In this talk we shall first give a new result on Diophantine approximation over p-adic fields concerning a class of commutative algebraic groups. Let G be a commutative algebraic group defined and disjoint to the additive group over a number field and which satisfies the condition of semistability. Consider a linear form with algebraic coefficients on the Lie algebra of G and an algebraic point in a p-adic neighbourhood of the origin that is not zero under the linear form. We give an effectively computable lower bound for the p-adic absolute value of the linear form at the point. For the rest of the talk, we shall deduce some new results on p-adic transcendence theory from the p-adic analytic subgroup theorem.