

Graduiertenkolleg

# Experimentelle und konstruktive Algebra



## Kolloquiumsvortrag

Dienstag, 24. Januar 2012, 15:45 Uhr, Hörsaal III

**ANDREW OBUS** (Columbia University in the City of New York, USA / Max-Planck-Institut für Mathematik Bonn):

### ***The Local Lifting Problem***

If  $k$  is an algebraically closed field of characteristic  $p$  and  $G$  is a finite group, one can ask whether a continuous  $k$ -linear  $G$ -action on  $k[[t]]$  lifts to a continuous linear  $G$ -action on  $R[[t]]$ , for some discrete valuation ring  $R$  in characteristic zero with residue field  $k$ . We will motivate this question from algebraic geometry, and discuss several explicit examples where lifting is and is not possible. The Oort conjecture states that lifting should always be possible when  $G$  is cyclic. We will also discuss recent progress of STEFAN WEWERS and the speaker toward this conjecture.

Wir laden alle Interessierten herzlich ein.

Ab 15:00 Uhr gibt es Kaffee und Tee in der Bibliothek des Lehrstuhl D für Mathematik.