

Finiteness properties of arithmetic groups and their relatives

K.-U. Bux

I will report mostly on recent work by Kevin Wortman (Yale) and myself about negative results concerning the finiteness properties of groups such as

$$SL_n(F_q[t]), SL_n(F_q[t, 1/t]) \quad (\text{not of type } F_\infty)$$

and

$$SL_2(Z[t, 1/t]), SL_3(Z[t]) \quad (\text{not finitely presented})$$

I will focus on the underlying geometric ideas.

If time permits, I will also talk about work in progress (also joint with Kevin Wortman) about positive finiteness results.