Bounding the Iwasawa invariants of Selmer groups

Sören Kleine

Universität der Bundeswehr München

`soeren.kleine@unibw.de`

Let p be a rational prime. After recalling some basic notation from Iwasawa theory, we study the growth of p-primary Selmer groups of abelian varieties with good and ordinary reduction at p in $\mathbb{Z}_p$-extensions of a fixed number field K. Proving that in many situations the knowledge of the Selmer groups in a sufficiently large number of finite layers of a $\mathbb{Z}_p$-extension of K suffices for bounding the over-all growth, we relate the Iwasawa invariants of Selmer groups in different $\mathbb{Z}_p$-extensions of K.