

Diophantine properties for the special values of Dedekind zeta functions

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According to Northcott's theorem, any set of algebraic numbers of bounded height and bounded degree is finite. Analogous finiteness properties are also satisfied by many other heights, such as the Faltings height. Given the many conjectural links between heights and special values of L-functions (with the BSD conjecture as the most remarkable example), it is natural to ask whether special values of L-functions satisfy a similar Northcott property. In this talk, we will outline joint work in progress with Fabien Pazuki and Riccardo Pengo that shows the Northcott property does not hold for the Dedekind zeta function at $1/2$.

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