

Transcendence and Leopoldt's conjecture

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In 1981, Michel Waldschmidt proved that the p -adic rank of the group of units of a number field is at least half of its usual rank. This is so far the best (and only) estimate towards Leopoldt's conjecture for a general number field. He obtained this as a consequence of a general result of his concerning matrices whose entries are p -adic logarithms of algebraic numbers. In this talk, we survey several attempts to improve on this and other such estimates.