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On the index of a number field and some connected open questions

Let K be a number field of degree n over \mathbb{Q} , and A its ring of integers. Let $I(K) = \gcd\{[A : Z[\alpha]]\}$, where α primitive element of A . Let p a prime and $I_p(K)$, be the p -adic valuation of $I(K)$. Determining $I_p(K)$ is still an open problem. In this talk we will report on some progress towards the computation of the prime divisors of $I(K)$ and some other connected questions.