## **Generic Polynomial of Integers and Applications**

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**Abstract :** Consider an algebraic number field K of degree n, A0 K is its ring of integers and a prime number p inert in K. Let  $F(u1, \ldots, un, x)$  be the generic polynomial of integers of K. We will study in advance the stability of this polynomial and then, we will apply it in order to obtain all the monic irreducible polynomials in Fp[x] of degree d dividing n.

Keywords : generic polynomial, irreducibility, iteration, stability, inert prime, totally ramified

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