

Online Number Theory Seminar

13 October 2023. – 17:00-17:50

L. Hajdu : Polynomials having only rational roots

In the talk we present various results concerning polynomials in $\mathbb{Z}[x]$ having only rational roots. We give sharp upper bounds for the degree assuming that the coefficients are bounded, we present a theorem saying that the degree of a polynomial with coefficients divisible neither by 2 nor by 3 is at most three, and we give a finiteness result in the case where all coefficients are composed of primes from a fixed finite set. We exhibit some ideas from the proofs of these statements, and present some open problems, as well.

The results presented are joint with R. Tijdeman and N. Varga.