

p -adic variation of L functions of exponential sums

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Abstract. I will present a proof to a recent conjecture of Wan: Let $d > 2$. Let A^d be the space of degree- d monic polynomials in one variable over the rationals, there exists a Zariski dense subset U in A^d such that for every $f(x)$ in U the limit of Newton polygon of the exponential sum of $f(x) \bmod p$ is equal to the Hodge polygon of the exponential sum of $f(x)$ as p approaches infinity.

