

## On totients

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abstract: Given a positive integer  $k$ , the distribution of totients in residue class  $2^k \pmod{2^{k+1}}$  will be discussed. While it is completely easy to determine the asymptotic behaviour of the magnitude of totients  $2 \pmod{4}$ , that is half of the number of prime numbers, the cases  $k > 1$  are far from being easy. For these cases will be provided conditional results on the multiplicities of such totients, and also some natural questions that we are unable to answer yet. This is a working in progress joint with Davi Lima (UFAL).