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Density modulo 1 of some sequences associated to the functions φ and σ

By MEHDI HASSANI (Zanjan) and MOHAMMAD NASIRI-ZARE (Zanjan)

Abstract. For any polynomial G with integral coefficients and taking positive values at positive arguments, we prove density modulo 1 of several sequences associated to the Euler and sum of divisors functions evaluated at G. More precisely, density modulo 1 of the following sequences with general terms: $\sum_{m\le n}(\varphi(G(m))/G(m))^\ell$, $\sum_{m\le n}(G(m)/\sigma(G(m)))^\ell$ and $\sum_{m\le n}(\varphi(G(m))/\sigma(G(m)))^\ell$ for given $\ell > 0$.

MEHDI HASSANI &
MOHAMMAD NASIRI-ZARE
DEPARTMENT OF MATHEMATICS
UNIVERSITY OF ZANJAN
UNIVERSITY BLVD.
45371-38791, ZANJAN
IRAN

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