1163-46-118 **Javad Mashreghi**, **Pierre-Olivier Parisé** and **Thomas Ransford***
(ransford@mat.ulaval.ca). *Failure of approximation of odd functions by odd polynomials.*

We construct a Hilbert holomorphic function space H on the unit disk such that the polynomials are dense in H, but the odd polynomials are not dense in the odd functions in H. As a consequence, there exists a function f in H that lies outside the closed linear span of its Taylor partial sums $s_n(f)$, so it cannot be approximated by any triangular summability method applied to the $s_n(f)$. We also show that there exists a function f in H that lies outside the closed linear span of its radial dilates $f_r,\ r < 1$. (Received August 17, 2020)