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)