1127-26-240   **Amalia Culiuc*** (amalia@math.gatech.edu), **Robert Kesler** (rkesler6@gatech.edu) and **Michael Lacey** (lacey@math.gatech.edu). *Sparse bounds for the discrete cubic Hilbert transform.*

For finitely supported functions f on $\mathbb{Z}$, the discrete cubic Hilbert transform is given by

$$H_3 f(n) = \sum_{m \neq 0} \frac{f(n - m^3)}{m}.$$

We prove that there exists $r < 2$ such that H_3 is dominated by an (r, r) sparse form. This is the first result of this type concerning discrete harmonic analytic operators and it immediately implies new weighted inequalities. (Received February 04, 2017)