1042-55-140 Michael A Hill* (mikehill@virginia.edu), Department of Mathematics, University of Virginia, PO Box 400137, Charlottesville, VA 22911. Power operations and differentials in higher real K-theory.

We describe how to use a combinations of power operations and Ravenel's "method of descent" to deduce differentials in the homotopy fixed point spectral sequence for the Hopkins-Miller higher real K-theory spectra $EO_{f(p-1)}$. Time permitting, we will also discuss how applying power operations in a non- E_{∞} setting produce new families of differentials. This is all joint work with Hopkins and Ravenel. (Received August 16, 2008)