1046-55-1595 **Michael A. Hill*** (mikehill@virginia.edu), University of Virginia, Department of Mathematics, PO Box 400137, Charlottesville, VA 22904, and **Michael J. Hopkins** and **Douglas C. Ravenel**. *Differentials in homotopy fixed point spectral sequences.*

We describe geometric techniques that can be used to easily produce canonical families of differentials in homotopy fixed point spectral sequences for highly structured ring spectra. The primary application is to the higher real K-theories of Hopkins and Miller, defined as the homotopy fixed points of finite subgroups of the Morava stabilizer group acting on the Lubin-Tate spectrum. There are also applications to topological cyclic homology, providing some clean arguments for differentials therein. (Received September 16, 2008)