1054-55-101 **Maia Averett*** (maverett@mills.edu), MCS Department, Mills College, 5000 MacArthur Blvd, Oakland, CA 94613. *Real Johnson-Wilson Theories.*

This talk will summarize some recent work on a new family of cohomology theories made accessible by Kitchloo and Wilson, the so-called Johnson-Wilson theories $ER(n)$. We will relate the theories $ER(n)$ to homotopy fixed points of the Morava E-theories E_n under an action of a certain subgroup of the Morava stabilizer group. In doing so, we obtain a calculation of the coefficients of the homotopy fixed points of E_n for this subgroup and also see that, after completion, the $ER(n)$ are commutative S-algebras. If time permits, we will also discuss the $ER(n)$ cohomology of $BO(k)$ and $ER(n)$-orientations. (Received September 08, 2009)