1154-55-1725 **Katharine L Adamyk*** (katharine.adamyk@colorado.edu). *Classification of $\mathcal{A}(1)$-modules.* Preliminary report.

The Steenrod algebra, $\mathcal{A}$, arises from operations on cohomology (with coefficients in $\mathbb{Z}/p\mathbb{Z}$) that interact nicely with the stabilization of topological spaces. For $p = 2$, $\mathcal{A}$ can be generated by a set of elements, the Steenrod squares, indexed by the nonnegative integers. The subalgebra of $\mathcal{A}$ generated by the first 2^n Steenrod squares is denoted by $\mathcal{A}(n)$. Any $\mathcal{A}$-module inherits an $\mathcal{A}(n)$-module structure, but not all $\mathcal{A}(n)$-modules can be lifted to an $\mathcal{A}$-module. In this talk, we will focus on a classification of certain $\mathcal{A}(1)$-modules that is useful for determining which $\mathcal{A}(1)$ modules can be lifted. (Received September 16, 2019)