1001-19-337 **Andrew J. Blumberg*** (`blumberg@math.uchicago.edu`), 5734 S. University, Chicago, IL 60615.
A localization sequence for $K(ku)$.

In this talk, we discuss the construction of a "localization" cofiber sequence in algebraic K-theory

$$K(H\mathbb{Z}) \to K(ku) \to K(KU)$$

which is induced from the localization map $ku \to KU$. This is the analogue for S-algebras of a standard localization sequence which arises in the K-theory of rings. Unfortunately, the arguments used to obtain this result in the case of rings do not generalize to S-algebras due to the lack of an adequate devissage theorem in the context of general Waldhausen categories. Although it is not clear that this cofiber sequence exists for all such S-algebra maps, we do obtain the existence of such a sequence for ku. This result was conjectured by Hesselholt to explain calculations of $THH(ku)$ obtained by Ausoni. (Received August 30, 2004)