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Anna Marie Bohmann*, am.bohmann@vanderbilt.edu, and **Angélica M. Osorno**. *Comparing K-theory functors multiplicatively.*

Algebraic K-theory is a method for building spectra out of suitable categorical data. There are several different versions of algebraic K-theory that take as starting points different types of categorical data. Two oft-cited versions are Segal’s K-theory machine, which starts with symmetric monoidal categories, and Waldhausen’s S_\bullet -construction, which starts with Waldhausen categories. Waldhausen himself constructs a functor comparing the S_\bullet -construction with Segal’s machine. For many uses, one wants a K-theory construction that is “multiplicative.” Both Segal’s and Waldhausen’s constructions have lifts to multiplicative constructions, due to Elmendorf–Mandell and Blumberg–Mandell respectively. In this talk, I will discuss a comparison of these multiplicative constructions that lifts Waldhausen’s original functor. This requires the language of multicategories. (Received January 19, 2018)