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*Algebraic  $K$ -theory presheaf of spectra*

The published versions of the construction of the algebraic  $K$ -theory presheaf of spectra predate recent developments in stable homotopy theory, and are quite awkward from a modern point of view.

Waldhausen's methods can be used to produce symmetric spectrum models for  $K$ -theory spectra, as well as smash product pairings for biexact pairings such as tensor product. This construction can be promoted to give an algebraic  $K$ -theory presheaf of symmetric spectra on the big site for a scheme  $S$ . The usual coherence problems are solved by using big site vector bundles in place of ordinary vector bundles to define the spectra. This construction is a foundation for all Grothendieck topological versions of algebraic  $K$ -theory, such as étale  $K$ -theory and motivic  $K$ -theory.