

1056-19-1069

**Youngsoo Kim\*** (ykim33@illinois.edu), University of Illinois at Urbana-Champaign,  
Department of Mathematics, 1409 W. Green Street, Urbana, IL 61801. *Motivic symmetric ring  
spectrum representing algebraic K-theory.*

Voevodsky showed that there is a motivic spectrum representing algebraic  $K$ -theory. An equivalent spectrum that is also a symmetric ring spectrum is constructed using Gillet-Grayson  $K$ -theory. A coherence problem occurs when one verifies the symmetry. It is solved by introducing the concept of standard vector bundles, which is a category of vector bundles with strictly associative tensor product that is also strictly commutative with line bundles. (Received September 22, 2009)