1007-16-173 **Gary Brookfield*** (`gbrookf@calstatela.edu`), Dept. of Math, California State University, 5151 State University Dr., Los Angeles, CA 90032. *Categories, Monoids and Geometry.*

Given a category of modules $\mathbb{S}$, there is a universal monoid $(M(\mathbb{S}), +, 0)$ and a map $[\cdot] : \mathbb{S} \to M(\mathbb{S})$ such that, if $0 \to A \to B \to C \to 0$ is an exact sequence in $\mathbb{S}$, then $[A] + [C] = [B]$ in $M(\mathbb{S})$. In the case that $\mathbb{S}$ is the category of finitely generated modules over a Noetherian commutative ring, then $M(\mathbb{S})$ contains the same geometric information, but in a simpler form, as the corresponding affine scheme. In this talk, I will justify this claim and discuss extensions of this idea to projective schemes and noncommutative rings. (Received February 20, 2005)