

I will describe a simple and explicit model of the category of noncommutative (=NC) motives of separable algebras  $\text{Sep}(k)$  over a field  $k$ . Making use of it, I will obtain a complete dictionary between direct sums of NC motives of central simple algebras (=CSA) and sequences of elements in the Brauer group of  $k$ . Among other applications, I will establish two families of motivic relations between CSA which hold for every additive invariant (e.g., algebraic K-theory, cyclic homology, and topological Hochschild homology) and compute the additive invariants of twisted flag varieties using solely the Brauer classes of the corresponding CSA. This is joint work with Michel van den Bergh.