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Angelica M. Osorno* (aosorno@math.uchicago.edu) and **Niles Johnson**. *Stable homotopy 1-types and symmetric Picard groups*. Preliminary report.

It is a classical result that groupoids model homotopy 1-types, in the sense that there is an equivalence between the homotopy categories, via the classifying space and fundamental groupoid functors. We extend this result to stable homotopy 1-types and symmetric Picard groupoids, that is, symmetric monoidal groupoids in which every object has a weak inverse. Using an algebraic description of symmetric Picard groupoids, we identify the Postnikov data associated to a stable 1-type; the abelian groups π_0 and π_1 , and the unique k -invariant. We relate this data to the exact sequences of Picard groupoids developed by Vitale. (Received September 22, 2011)