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T. Kyle Petersen* (tpeter21@depaul.edu), 2320 N. Kenmore, Chicago, IL 60614, and **Marcelo Aguiar**, Department of Mathematics, College Station, TX 77843. *The module of affine descents.*

We use the notion of affine descent sets to describe a module over Solomon's descent algebra. The approach is geometric; while the geometry of the Coxeter complex can be used to describe Solomon's descent algebra, this module arises from the geometry of the Steinberg torus. (Received May 27, 2011)