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Gordana G Todorov* (g.todorov@neu.edu), Mathematics Department, Northeastern University, 360 Huntington Avenue, Boston, MA 02115, Claire Amiot (clairean@math.ntnu.no), Mathematics Department, Trondheim, Norway, and Idun Reiten (idunr@math.ntnu.no), Mathematics Department, Trondheim, Norway. *Module categories associated to the words in Coxeter groups.*

Module categories associated to the words in Coxeter groups Gordana Todorov, Northeastern University, Boston, MA Abstract: Categories with some of the essential properties of cluster categories were already defined by several authors, in particular, certain categories of modules over preprojective algebras associated to the words in the Coxeter group are such categories. We further describe properties of those categories in terms of mutations/approximations over hereditary algebras, filtrations over preprojective algebra and also give relation to Amiot generalized cluster categories. (Received September 14, 2009)