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**Alex Dugas\*** ([adugas@pacific.edu](mailto:adugas@pacific.edu)), Stockton, CA 95204. *Periodic algebras arising as endomorphism rings.*

It is well-known that any maximal Cohen-Macaulay module over a hypersurface has a periodic free resolution of period 2. Auslander, Reiten and Buchweitz have used this periodicity to explain the existence of periodic projective resolutions for the finite-dimensional preprojective algebras of Dynkin type, which arise as stable endomorphism rings of Cohen-Macaulay modules. These algebras are in fact periodic, meaning that they have periodic projective resolutions as bimodules and thus periodic Hochschild cohomology as well. In this talk we give a generalization of this construction of periodic algebras in the context of Iyama's higher AR-theory. In particular, we study the endomorphism rings of periodic  $d$ -cluster tilting objects in triangulated categories. (Received August 09, 2010)