Rebecca R.G.* (rirebhuh@syr.edu) and Geoffrey D. Dietz. Directed families of big Cohen-Macaulay algebras in equal characteristic.

Previously, Geoffrey Dietz proved that big Cohen-Macaulay algebras in characteristic $p > 0$ form a directed family. In joint work with Geoffrey Dietz, we extend these results to the equal characteristic 0 case using work of Schoutens on reduction to characteristic $p$ via ultraproducts. When combined with results on closure operations by Geoffrey Dietz and the speaker, this work has implications for the use of big Cohen-Macaulay algebras in classifying singularities. (Received January 16, 2017)