1030-13-132 **Brent D Strunk*** (strunk@ulm.edu), Department of Mathematics and Physics, University of Louisiana at Monroe, Monroe, LA 71201, and **Huy Tai Ha** (tha@math.tulane.edu), Department of Mathematics, Tulane University, 6823 St. Charles Ave, New Orleans, LA 70118. *Minimal Free Resolutions and Asymptotic Behavior of Multi-Graded Regularity.*

Let S be a standard N^k-graded polynomial ring over a field, let I be a multigraded homogeneous ideal of S, and let M be a finitely generated Z^k-graded S-module. We prove that the resolution regularity, a multigraded variant of Castelnuovo-Mumford regularity, of I^nM is asymptotically a linear function. This shows that the well known Z-graded phenomenon carries to the multigraded situation. (Received July 28, 2007)