1100-13-247 Hailong Dao and Eleonore Faber* (efaber@math.toronto.edu), University of Toronto at Scarborough, 1265 Military Trail, Toronto, Ontario M1A 1C4, Canada, and Colin Ingalls. The global spectrum and noncommutative resolutions of singularities. Preliminary report.

Motivated by algebraic geometry, one studies non-commutative analogs of non-commutative resolutions of singularities. In short, non-commutative resolutions of commutative rings R are endomorphism rings of certain R-modules of finite global dimension. However, it is not clear which values of finite global dimensions are possible, even for rings of low Krull-dimension. This leads us to consider the so-called global spectrum of a ring, that is, the set of all possible global dimensions of endomorphism rings of Cohen-Macaulay-modules.

In this talk we will address some questions connected with the global spectrum and discuss several examples coming from algebraic geometry. (Received February 09, 2014)