

Graded Maximal Cohen-Macaulay Modules over Elliptic Curves

Ragnar-Olaf Buchweitz

University of Toronto

A (very!) special case of a theorem of Orlov says that the stable category of graded maximal Cohen-Macaulay modules over the cone of an elliptic normal curve is equivalent to the bounded derived category D of coherent sheaves on the underlying elliptic curve.

We will discuss the nature of these equivalences and how we might use the known structure of D and its auto-equivalences to extract information on graded maximal Cohen-Macaulay modules over the cones.