

\mathbb{Z} -graded weak modules and regularity

Nina Yu

December 18 - 22, 2011

Department of Mathematics, University of California, Santa Cruz

E-mail: nyu1@ucsc.edu

Abstract

It is proved that if any \mathbb{Z} -graded weak module for vertex operator algebra V is completely reducible, then V is rational and C_2 -cofinite. That is, V is regular. This gives a natural characterization of regular vertex operator algebras.