

Algebraic Models for L_2 Cohomology

Tony Pantev

University of Pennsylvania, Philadelphia, USA
tpantev@math.upenn.edu

I will explain how Hodge theory allows us to compute L_2 cohomology of harmonic bundles and twistor D-modules in a purely algebraic manner. I will describe a new algebraic formula for the L_2 cohomology of harmonic bundles with singularities and will discuss some applications. This is a joint work with R. Donagi and C. Simpson.