



BRANES ON G -MANIFOLDS

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Abstract. Let X be Calabi-Yau manifold acted by a group G . We give a definition of G -equivariance for branes on X , and assign to each equivariant brane an element of the equivariant cohomology of X that can be considered as a charge of the brane. We prove that the spaces of strings stretching between equivariant branes support representations of G . This fact allows us to give formulas for the dimension of some of such spaces, when X is a flag manifold of G .

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1. Introduction

Let X be a compact Kähler n -manifold analytically acted by a Lie group G . Some objects related with X admit an “equivariant” version, when they are equipped with a G -action compatible with its structure, for example, the equivariant vector bundles on X .