COMPLEX COBORDISM CLASSES OF HOMOGENEOUS SPACES

SVJETLANA TERZIĆ

ABSTRACT. In the first part of the talk we aim to recall the preliminaries on complex cobordism theory and define the notion of the universal toric genus for an equivariant torus action on a stable complex manifold.

In the second part we show how the notion of the universal toric genus can be used to explicitly compute the complex cobordism classes of homogeneous spaces of positive Euler characteristic. We assume homogeneous spaces to be equipped with an arbitrary stable complex structure for which the canonical action of the maximal torus is equivariant. This leads to the explicit formulas for complex cobordism classes of some important homogeneous spaces such as flag or Grassmann manifolds.