

1050-55-24

Catalin Zara*, UMass Boston, Department of Mathematics, 100 Morrissey Boulevard, Boston, MA 02125. *GKM Fiber Bundles*.

For GKM manifolds the equivariant cohomology ring of the manifold is isomorphic to the cohomology ring of its GKM graph. We explore the implications of this fact for equivariant fibrations for which the total space and the base space are both GKM, and derive a graph theoretical description of the equivariant cohomology of the total space from the equivariant cohomology of the base and of the fiber. As application we obtain bases for the equivariant cohomology of flag varieties. This is joint work with Victor Guillemin and Silvia Sabatini. (Received January 06, 2009)