

THE COHOMOLOGY RING OF THE GKM GRAPH OF A FLAG MANIFOLD

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If a closed smooth manifold M with an action of a torus T satisfies certain conditions, then a labeled graph (called a GKM graph) \mathcal{G}_M is associated with M , which encodes a lot of geometrical information on M . For instance, the “cohomology” ring $\mathcal{H}_T^*(\mathcal{G}_M)$ of \mathcal{G}_M is defined combinatorially and often isomorphic to the equivariant cohomology of M . In this talk, we determine the ring structure of $\mathcal{H}_T^*(\mathcal{G}_M)$ directly when M is a flag manifold of classical type.

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