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*Equivariant cohomology of flag manifolds*

The complex flag manifold  $\mathrm{Fl}_n(\mathbb{C})$  is the space of all nested sequences

$$V_1 \subset \cdots \subset V_n,$$

where each  $V_k$  is a vector subspace of  $\mathbb{C}^n$ ,  $\dim V_k = k$ . The group  $T$  of all diagonal unitary  $n \times n$  matrices acts canonically on this space. The corresponding equivariant cohomology ring  $H_T^*(\mathrm{Fl}_n(\mathbb{C}))$  admits two presentations: of Borel type (in terms of generators and relations) and of Goresky–Kottwitz–MacPherson type (in terms of restrictions to the fixed points of the action). In this talk I will present similar descriptions of the equivariant cohomology rings of the quaternionic and the octonionic flag manifolds relative to some appropriate group actions. The equivariant (topological, complex)  $K$ -theory of these spaces will also be discussed briefly.