1125-05-1318   **Elizabeth Drellich***, edrelli1@swarthmore.edu. *GKM theory for non-GKM spaces.*

For certain families of algebraic varieties, including flag varieties, GKM theory provides tools to calculate the torus equivariant cohomology explicitly. These results descend to the ordinary cohomology and are a powerful tool in Schubert calculus. Recently some of the power of this tool has been used to give explicit Schubert calculus-style combinatorial formulas for spaces that are not GKM, like p-compact spaces, Hessenberg varieties, and in particular the Peterson variety. This talk will present some of those spaces and show how aspects of GKM theory can be used on a larger collection of spaces. (Received September 16, 2016)