1031-14-104   **Richard Rimanyi*** (`rimanyi@email.unc.edu`), UNC-CH Phillips Hall, CB#3250, Chapel Hill, NC 27599. *Equivariant classes of matroid realization spaces.*

We will discuss equivariant classes represented by invariant varieties in a representation, some motivations (singularity theory, Schubert calculus, cohomology rings of moduli spaces), and computational strategies. The example of matroid realization spaces will be considered in detail, with applications to school geometry (eg. Given 8 generic lines $l_1, ..., l_8$, and a point Q in the plane, how many Pappus configurations $P_1, ... P_9$ exist with $P_i \in l_i$, and $P_9 = Q$?). Joint work with L. Feher, A. Nemethi. (Received August 06, 2007)