1023-05-936   **Harm Derksen*** (`hderksen@umich.edu`), 530 Church St, Ann Arbor, MI 48103. *A symmetric function generalization of the Tutte polynomial.*

Given a subspace arrangement, one can form the product J of the vanishing ideals of the subspaces in the arrangement. Surprisingly, the Hilbert series of J is a combinatorial invariant, i.e., it only depends on the dimensions of the intersections of the subspaces. Using this, I will define a symmetric function for subspace arrangements and matroids that generalizes the Tutte polynomial. (Received September 23, 2006)