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**Julianna S Tymoczko\*** ([tymoczko@umich.edu](mailto:tymoczko@umich.edu)), Department of Mathematics, University of Michigan, 530 Church Street, Ann Arbor, MI 48109. *Equivariant Pieri rules.*

The structure of the cohomology ring of  $G/P$  gives a deep connection between geometry on the one hand and combinatorics and algebra on the other. (Equivariant) Pieri rules are multiplication formulas for structurally simple classes in the (torus equivariant) cohomology of  $G/P$ . When  $G/P$  is the Grassmannian of  $k$ -planes in  $n$ -space, the equivariant cohomology ring is well understood through work of Knutson-Tao and Vakil. Surprisingly elementary questions remain for Grassmannians of other Lie types and for partial or full flag varieties.

We discuss how to use toric methods to give Pieri rules in the equivariant cohomology of  $G/P$ . (Received September 06, 2006)