

1079-14-24

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Department of Mathematics, Texas A&M University, College Station, TX 77843-3368, and **Frank Sottile** (sottile@math.tamu.edu), Department of Mathematics, Texas A&M University, College Station, TX 77843-3368. *Galois groups of Schubert problems of lines are at least alternating.*

The Galois group of a problem in enumerative geometry is a subtle invariant that encodes special structures in the set of solutions. This invariant was first introduced by Jordan in 1870. In 1979, Harris showed that the Galois group of such problems coincides with the monodromy group of the total space. These geometric invariants are difficult to determine in general. However, a consequence of Vakil's geometric Littlewood-Richardson rule is a combinatorial criterion to determine if a Schubert problem on a Grassmannian contains at least the alternating group. Using Vakil's criterion, we showed that for Schubert problems of lines, the Galois group is at least the alternating group. (Received January 11, 2012)