1001-14-65 **Alexandre Eremenko** (`eremenko@math.purdue.edu`), Department of Mathematics, Purdue University, 150 N University St, West Lafayette, IN 47907-2067, and **Andrei Gabrielov*** (`agabriel@math.purdue.edu`), Department of Mathematics, Purdue University, 150 N University St, West Lafayette, IN 47907-2067. *Lower bounds in some problems of real Schubert calculus.* Preliminary report.

We single out some problems of Schubert calculus of subspaces of codimension 2 that have the property that all their solutions are real whenever the data are real. For other similar problems we prove non-trivial lower bounds for the number of real solutions. Our arguments explore the connection between subspaces of codimension 2 and rational functions of one variable. Part of these results is our joint work with M. Shapiro and A. Vainshtein. (Received August 05, 2004)