962-20-566 **Robert M. Guralnick** (guralnic@math.usc.edu), Department of Mathematics, University of Southern California, Los Angeles, CA 90089-1113, USA, **Kay Magaard** (kaym@math.wayne.edu), Department of Mathematics, Wayne State University, Detroit, MI 48202, USA, **Jan Saxl** (saxl@dpmms.cam.ac.uk), DPMMS, University of Cambridge, Cambridge CB2 1SB, England, and **Pham Huu Tiep*** (tiep@math.ufl.edu), Department of Mathematics, University of Florida, Gainesville, FL 32611-8105, USA. *Low-dimensional representations of $Sp_{2n}(q)$ and $SU_n(q)$ in cross-characteristic* Preliminary report.

Let G be a finite group of Lie type defined in characteristic p. Then the degree of any nontrivial irreducible (projective) representation of G in characteristic $\neq p$ is bounded below by the Landazuri-Seitz-Zalesskii bound, $\ell_{LSZ}(G)$. In a number of applications it is important to know all the cross-characteristic representations of G of degree less than say $(\ell_{LSZ}(G))^{3/2}$. This problem has been solved for $G = SL_n(q)$ by R. M. Guralnick and P. H. Tiep, and for $G = SU_n(q)$ by G. Hiss and G. Malle. We solve the problem for the case $G = Sp_{2n}(q)$ with q odd. We also improve the results of Hiss and Malle for the case $G = SU_n(q)$. Applications of our results to the minimal polynomial problem and to the quadratic pair problem will also be given. (Received September 15, 2000)