1078-20-199 **Bhama Srinivasan** (srinivas@uic.edu), Dept. of Mathematics, Comp. Sci., and Stat., University of Illinois at Chicago, 851 South Morgan Stree, Chicago, IL 60680-7045, and **C. Ryan Vinroot*** (vinroot@math.wm.edu), Department of Mathematics, College of William and Mary, P. O. Box 8795, Williamsburg, VA 23187-8795. *Semisimple symplectic characters of finite unitary groups.*

Let $G = \mathrm{U}(2m, \mathbb{F}_{q^2})$ be the finite unitary group defined over a finite field of order q, where q is the power of an odd prime p. We prove that the number of irreducible complex characters of G with degree coprime to p, and with Frobenius-Schur indicator -1, is equal to q^{m-1}. In particular, we find a (non-canonical) bijection between these irreducible characters and the set of self-dual polynomials of degree $2m$ over $\mathbb{F}_q$ with constant term -1. (Received December 07, 2011)