1125-11-273Alicia Marino* (amarino@wesleyan.edu) and Wai Kiu Chan (wkchan@wesleyan.edu).Strictly k-regular quadratic forms. Preliminary report.

An integral quadratic form is said to be strictly k-regular if it primitively represents all quadratic forms of k variables that are primitively represented by its genus. We show that, for k>1, there are finitely many inequivalent positive definite primitive integral quadratic forms of k+4 variables that are strictly k-regular. Our result extends a recent finiteness result of Earnest-Kim-Meyer (2014) on strictly regular quadratic forms of 4 variables. (Received August 22, 2016)