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Zhibek Kadyrsizova, Jennifer Kenkel, Janet Page, Jyoti Singh, Karen E Smith, Adela Vraciu* (vraciu@math.sc.edu) and **Emily Witt**. *Classification of Frobenius forms in characteristic p .*

Let k be a field of characteristic $p > 0$. We say that a homogeneous polynomial $f \in k[x_1, \dots, x_n]$ is a Frobenius form if it has degree $q+1$ and it is in the ideal (x_1^q, \dots, x_n^q) for some $q = p^e$. These forms have interesting extremal properties (for instance they have the smallest F-pure threshold relative to the degree among square-free homogeneous polynomials). We show that for a fixed n and q there are only finitely many Frobenius forms up to change of coordinates, and we describe those explicitly. (Received March 04, 2021)