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The (p,k)-calculus for quadratic forms

A simple method will be described for determining the number of representations of a positive integer n by a quadratic form  $a_1x_1^2 + \cdots + a_{2k}x_{2k}^2$ , where k is a positive integer and  $a_1, \ldots, a_{2k}$  are positive integers whose prime factors belong to  $\{2, 3\}$ . This is joint work with A. Alaca and S. Alaca.