Vidy Venkateswaran* (vidyav@stanford.edu). A New Class of Multiset Wilf Equivalent Pairs.

We say the pair of patterns \((\sigma, \tau)\) is Multiset Wilf Equivalent if, for any multiset \(M\), the number of permutations of \(M\) that avoid \(\sigma\) is equal to the number of permutations of \(M\) that avoid \(\tau\). In this paper, we find a large new class of Multiset Wilf Equivalent pairs, namely, the pair \((\sigma_{n-2}(n - 1)n, \sigma_{n-2}n(n - 1))\), for \(n \geq 3\) and \(\sigma_{n-2}\) a permutation of \(\{1^{x_1}, 2^{x_2}, ..., (n-2)^{x_{n-2}}\}\). It is the most general Multiset Wilf Equivalence result to date. (Received September 13, 2005)