1116-05-2789 **Quang T. Bach*** (qtbach@ucsd.edu) and **Jeffrey B. Remmel**. *Descent c-Wilf Equivalence.*
Let τ be a permutation. Let $\mathcal{NM}_n(\tau)$ denote the set of permutations σ of the symmetric group S_n which have no consecutive τ-matches and let $NM_n(\tau) = |\mathcal{NM}_n(\tau)|$. If α and β are elements of S_j, then we say that α *is c-Wilf-equivalent to* β if $NM_n(\alpha) = NM_n(\beta)$ for all $n \geq 1$. The main goal of this talk is to introduce refinements of the c-Wilf equivalence relation. We say that α and β are $(\mathbf{stat}_1, \ldots, \mathbf{stat}_k)$-c-Wilf equivalent if for all $n \geq 1$,

$$\sum_{\sigma \in \mathcal{NM}_n(\alpha)} \prod_{i=1}^{k} x_i^{\mathbf{stat}_i(\sigma)} = \sum_{\sigma \in \mathcal{NM}_n(\beta)} \prod_{i=1}^{k} x_i^{\mathbf{stat}_i(\sigma)}$$

where $\mathbf{stat}_1, \ldots, \mathbf{stat}_k$ are permutations statistics on permutations. We also give examples of **stat**-c-Wilf equivalent permutations for **stat** = (des, inv, LRmin), where des(σ) is the number of descents, inv(σ) is the number of inversions, and LRmin(σ) is the number of left-to-right minima of σ. (Received September 22, 2015)