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Evan Chen* (evanchen@mit.edu). *Schur-Concavity for Avoidance of Increasing Subsequences in Block-Ascending Permutations.*

For integers $a_1, \dots, a_n \geq 0$ and $k \geq 1$, let $\mathcal{L}_{k+2}(a_1, \dots, a_n)$ denote the set of permutations of $\{1, \dots, a_1 + \dots + a_n\}$ whose descent set is contained in $\{a_1, a_1 + a_2, \dots, a_1 + \dots + a_{n-1}\}$, and which avoids the pattern $12 \dots (k+2)$. We exhibit some bijections between such sets, most notably showing that $\#\mathcal{L}_{k+2}(a_1, \dots, a_n)$ is symmetric in the a_i and is in fact Schur-concave. This generalizes a set of equivalences observed by Mei and Wang. (Received September 18, 2017)