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**James A Sellers\*** ([sellersj@psu.edu](mailto:sellersj@psu.edu)), Department of Mathematics, Penn State University, 104 McAllister Building, University Park, PA 16802. *Congruences for Fishburn Numbers.*

The Fishburn numbers, originally considered by Peter C. Fishburn, have been shown to enumerate a variety of combinatorial objects. These include unlabelled interval orders on  $n$  elements,  $(2+2)$ -avoiding posets with  $n$  elements, upper triangular matrices with nonnegative integer entries and without zero rows or columns such that the sum of all entries equals  $n$ , non-neighbor-nesting matches on  $[2n]$ , a certain set of permutations of  $[n]$  which serves as a natural superset of the set of 231-avoiding permutations of  $[n]$ , and ascent sequences of length  $n$ . However, as far as we know, the Fishburn numbers have not been studied from an arithmetic point of view. In this talk, we prove that the Fishburn numbers satisfy infinitely many Ramanujan-like congruences modulo certain primes  $p$  (the set of which we will easily describe in the talk). This is joint work with George Andrews. (Received July 18, 2014)