1056-05-628   **Ae Ja Yee**, McAllister Bldg, University Park, PA 16802, and **Kagan Kursungoz***
(`kursun@math.psu.edu`), McAllister Bldg, University Park, PA 16802. *Alternating Permutations and the mth Descents.*

Yee and Huber (2008) defined half-descents on alternating permutations, and derived generating functions that incorporate both the inversions and the half-descents together. In this talk, a generalization of half-descents will be described on an appropriate class of permutations. Two-variable generating functions that incorporate inversions and the mth descents will be given. This unifies many previous results, along with new ones. Proofs will be sketched as time allows. A brief but fairly complete background will be given, so the talk is self-contained. This is joint work with Ae Ja Yee (Penn State). (Received September 14, 2009)