

1053-05-36

Eric S Egge* (eegge@carleton.edu), Department of Mathematics, Carleton College, Northfield, MN 55057. *Legendre-Stirling Permutations*. Preliminary report.

Recently Andrews and Littlejohn have given a combinatorial interpretation of Everitt, Littlejohn, and Wellman's Legendre-Stirling number of the second kind, akin to the usual set partitions interpretation of Stirling numbers of the second kind. In this talk we give a combinatorial interpretation of the coefficients of the polynomial $(1-x)^{3k+1} \sum_{n=0}^{\infty} LS(n+k, n)x^n$, where $LS(n, k)$ is the Legendre-Stirling number of the second kind. Like the usual interpretation of the Eulerian numbers (which arise in a similar context), our interpretation involves descents in permutations from a certain family. If time permits, we will also present Legendre-Stirling analogues of some classical Stirling number identities. (Received July 10, 2009)