Meeting: 1003, Atlanta, Georgia, SS 8A, AMS Special Session on Modular Representation Theory of Finite and Algebraic Groups, I

1003-20-697   **Oliver Ruff*** (`oruff@uoregon.edu`), Department of Mathematics, University of Oregon, Eugene, OR 97403. *Completely Splittable Representations of Symmetric Groups.*

A module over the symmetric group is said to be *completely splittable* [K] if it is semisimple under restriction to any Young subgroup. Such modules also turn out to be exactly the ones that admit a nice description under the 'Lie-theoretic' methods of Okounkov and Vershik in [OV]. In this talk we classify and construct the completely splittable modules, and give a new character formula that permits the calculation of the inverse decomposition numbers. Similar results for the degenerate affine Hecke algebra will be discussed as time permits.

References:

[K] Kleshchev, *Completely Splittable Representations of Symmetric Groups*, Journal of Algebra 181 (1996), 584-592.

[OV] Okounkov & Vershik, *A New Approach To Representation Theory of Symmetric Groups*, Selecta Mathematica Vol. 2, No. 4 (1996), 581-605. (Received September 27, 2004)