1024-05-170 **Monica J Vazirani*** (vazirani@math.ucdavis.edu), Department of Mathematics, One Shields Ave, Davis, CA 95616-8633. *Column removal in characteristic p.*

The irreducible representations of the symmetric group S_n are parameterized by partitions of n. One can use the partition, viewed as being built up column by column, to construct the module algebraically, piece by piece.

Over a field of characteristic p, the irreducible representations of S_n are parameterized by the "p-regular" partitions. However, the analogous construction of these modules fails. We give an alternate (algebraic) construction of the modules, motivated by viewing the crystal of the basic representation of $\widehat{\mathfrak{sl}}_p$ as a limit of tensor products of level 1 perfect crystals. This construction relies on the theorem of Grojnowski relating the crystal of the basic representation to the simple S_n-modules and their behavior under restriction to S_{n-1}.

The tensor product rule for crystals carries over to representation-theoretic information relating the symmetric group module indexed by a given partition to that indexed by the partition with its first column removed. (Received January 08, 2007)