COLLOQUIUM

UNIVERSITY OF PITTSBURGH
TUESDAY, JANUARY 8, 2013

704 THACKERAY HALL
3:00 P.M.

SEVAK MKRTCHYAN

DEPARTMENT OF MATHEMATICAL SCIENCES

CARNEGIE MELLON UNIVERSITY

**ASYMPTOTIC REPRESENTATION THEORY
OF SYMMETRIC GROUPS**

ABSTRACT: We will discuss certain problems of asymptotic representation theory. We will show how local and global statistical properties of Young diagrams with respect to certain probability measures can be used to obtain logarithmic, order-sharp bounds for the dimensions of certain representations of finite symmetric groups. In particular we will discuss the asymptotics of the dimensions of the isotypic components of the tensor representations of the symmetric groups with respect to the Schur-Weyl measures, which are essentially a one parameter deformation of the family of Plancherel measures on Young diagrams.

**Refreshments served at 2:30 p.m.
in the Math Dept. COMMON ROOM, Thackeray 705**

*The speaker is a candidate for a position in the Department.