Temple University Mathematics Colloquium

Eugene Gorsky

Columbia University

will speak on

Torus knots and Cherednik algebras

ABSTRACT: Double affine Hecke algebras were introduced by Cherednik in his proof of Macdonald conjectures, they are tightly related to the Calogero-Moser integrable system and its generalizations. In recent years, several interesting connections between the representation theory of Cherednik algebras and the topology of torus knots have emerged. In particular, all polynomial invariants of torus knots can be computed as characters of certain representations of rational Cherednik algebras. In my talk, I will explain this correspondence and show how it can be used to prove new results both in low-dimensional topology and in representation theory.

Monday, February 3, 2014
Lecture at 4:00 pm
Coffee, tea, and refreshments from 3:40 pm
Room 617, Wachman Hall
Department of Mathematics