Temple University Mathematics Colloquium

Thang Le

Georgia Tech

will speak on

The Quantum MacMahon Master Theorem

ABSTRACT: The MacMahon Master theorem (MMT) is a result in enumerative combinatorics and linear algebra. It is a multi-dimensional generalization of the identity

$$\frac{1}{1-x} = 1 + x + x^2 + \dots$$

The MMT has played an important role in enumerative combinatorics as it was used in proofs of many conjectures. We will present a q-analog of the MMT, answering a question raised by G. Andrews in 1975. We also discuss an application of the q-MMT in topology (the Jones polynomial theory). Joint work with S. Garoufalidis, D. Zeilberger, and V. Huynh.

Monday, September 30, 2013
Lecture at 4:00 pm
Coffee, tea, and refreshments from 3:40 pm
Room 617, Wachman Hall
Department of Mathematics