

Algebra, Geometry, and Mathematical Physics Seminar

q -Series in Analytic Number Theory

Dr. Tim Huber

Department of Mathematics
University of Texas–Pan American

Abstract

The classical partition function, $p(n)$, is defined by

$$\sum_{n=0}^{\infty} p(n)q^n = \prod_{k=1}^{\infty} (1 - q^k)^{-1}, \quad |q| < 1.$$

The generating function for the partition function is closely related to many other important functions from analytic number theory called *q-series*. A great deal of beautiful mathematics arises from the study of such series, involving topics from a myriad of disciplines. This lecture will provide an introduction to analytic number theory with an emphasis on results and techniques related to *q-series*. A number of open problems suitable for graduate students will be discussed.

Date: **Friday, October 30, 2009**

Time: 3:00pm–4:30pm

Place: MAGC 1.302

For further information or for special accommodations, please contact Dr. Sean Lawton via email at lawtonsd@utpa.edu.