

MATHEMATICS DEPARTMENT
North Carolina State University

ALGEBRA SEMINAR

Friday, February 2, 2007

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The Binomial Essence of Lecture Hall Partitions

ABSTRACT: A *lecture hall partition* is a sequence x_1, x_2, \dots, x_n of nonnegative integers satisfying the linear inequalities: $x_1/n \geq x_2/(n-1) \geq \dots \geq x_n/1$. Lecture hall partitions were introduced in 1997 by Bousquet-Mélou and Eriksson who showed that they are in one-to-one correspondence with partitions into odd parts less than $2n$. Since then, several generalizations and refinements of this result have been discovered.

In this talk we view lecture hall partitions from three different perspectives (integer-analogs, q -series identities, and Sylvester's bijection) to uncover some new connections.

3:00 - 3:50 pm HA 335

Faculty and Students are invited to attend.