



THE UNIVERSITY OF CHICAGO

Departments of Mathematics and Statistics
ALGEBRAIC GEOMETRY SEMINAR

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Eisenstein Series on Affine Loop Groups

TUESDAY, May 7, 2013, from 4:30–6:00 PM
202 Eckhart Hall, 5734 S. University Avenue

ABSTRACT

Eisenstein series on exceptional Lie groups are used in a number of constructions in number theory and representation theory. These groups have exotic arithmetic configurations, but are limited in number. It is thus tempting to define Eisenstein series on infinite-dimensional Kac-Moody groups. In the simplest such case of affine loop groups, they were constructed by Garland, who showed convergence in a shifted Weyl chamber. We give the full holomorphic continuation of Garland's cuspidal Eisenstein series to the entire complex plane. We also give the first convergence results for general Kac-Moody groups. I plan to describe these results as well as to indicate possible applications to the Langlands-Shahidi method and some recent work in string theory concerning graviton scattering. (Joint work with Howard Garland and Manish Patnaik.)

Organizers:

For further information on this event, please email Lek-Heng Lim at lekheng@galton.uchicago.edu or Madhav Nori at nori@math.uchicago.edu.

UCAGS Seminar URL: <http://www.stat.uchicago.edu/~lekheng/ag.html>