

# Polarizations and the moduli space of flat connections on a Riemann surface

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The Verlinde formula computes the dimensions of conformal blocks which are given by the quantization in a Kähler polarization of the moduli space of flat connections on a Riemann surface. In the early 90's Jeffrey and Weitsman showed that the Verlinde formula for the  $SU(2)$ -WZW model matched the quantization in a real polarization of the moduli space associated to a pants decomposition. In this talk I will explain the matching directly for the Riemann surface of genus 2 with a marked point. Our approach relies on a version of Witten deformation. Joint work with Takahiko Yoshida and Hajime Fujita.

1:10 p.m.  
Math 507  
Columbia University