

CALIFORNIA STATE UNIVERSITY, LONG BEACH

THE MATHEMATICS COLLOQUIUM

presents

Dr. Anthony Shaheen

CSULA Mathematics Dept.

speaking on

Finite Field Valued Modular Forms for Finite Upper Half Planes

Friday, December 2, 2005

12:00PM-1:00PM

FO3-200A

Abstract: We consider complex-valued modular forms on finite upper half planes H_q and obtain Fourier expansions of Eisenstein series invariant under the groups $\Gamma = GL(2, F_p)$ and $SL(2, F_p)$. The expansions are analogous to those of Maass wave forms on the ordinary Poincare upper half plane - the K-Bessel functions being replaced by Kloosterman sums.