

Meeting: 1004, Bowling Green, Kentucky, SS 9A, Special Session on L-Functions

1004-11-112 **Andrew H. Knightly*** (knightly@math.umaine.edu), Department of Mathematics & Statistics, 5752 Neville Hall, Rm 333, University of Maine, Orono, ME 04469-5752. *Tate classes and L-functions for a product of Picard modular surfaces.* Preliminary report.

I will sketch a proof of the equality of the rank of the space of Tate classes (of codimension 2) and the order of the pole of the L -function at $s = 3$ for a product of two Picard modular surfaces. The analytic theory follows immediately from known results on Rankin-Selberg L -functions for the general linear group. (Received January 20, 2005)