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Douglas Ulmer* (ulmer@math.arizona.edu), Department of Mathematics, University of Arizona, Tucson, AZ 85721. *Geometric construction of modular forms over function fields.*
Preliminary report.

Weil pointed out long ago that the coset space which carries modular forms for $GL(n)$ over a function field is naturally a moduli space for vector bundles (plus level structure). Pursuing this point of view leads to beautiful geometric constructions of classical automorphic forms like Eisenstein series, Poincare series, and theta functions. We will explain this for $GL(2)$. (Received September 27, 2000)