1019-11-122   **DINESH S. THAKUR***, Department of Mathematics, University of Arizona, Building 89, Tucson, AZ 85721. *Ihara power series for function fields.*

We will explain how,despite several differences in the fundamental group picture, analogs of Ihara power series and Deligne-Soule cocycle can be defined for function fields. Ihara series analog connects various objects of interest such as absolute Galois group, Gauss-Jacobi sums, Gamma functions, higher circular units, special zeta elements and jacobians of Fermat motives and Anderson's solitons.

This is joint work with Greg Anderson. (Received August 11, 2006)