

1112-11-300

**Salim Ali Altug\*** ([altug@math.columbia.edu](mailto:altug@math.columbia.edu)). *Explicit forms of the trace formula and analytic number theory.*

I will report on a recent research on the Arthur-Selberg trace formula for  $GL(2)$ . The main result is an explicit form of the (elliptic part of the) formula that is suitable for applications of non-comparative nature, mainly to problems of or related to analytic number theory. I will also discuss how certain distinguished representations appear in the elliptic part and their relation to analytic problems, in particular to beyond endoscopy. (Received August 07, 2015)