1038-14-170   **Steven Sperber*** (`sperber@math.umn.edu`), School of Mathematics, University of Minnesota, Minneapolis, MN 55455. *p-adic analytic formulas for unit-roots of L-functions for exponential sums.* Preliminary report.

This is a joint work with Adolphson. p-adic analytic formulas for unit-roots are useful in the factorization of an F-crystal according to p-adic absolute values. A classical formula for the Bessel function due to Schlomilch can be used quite generally to give unit-root formulas for the L-functions associated with exponential sums on a torus. (Received February 07, 2008)