

1172-42-144

**Alex Barron\***, 1409 W Green St, Urbana, IL 61801. *On maximal estimates for Weyl sums with frequencies on the paraboloid.*

We discuss certain maximal  $L^p$  bounds for Weyl sums with frequencies on the paraboloid. Generally speaking these bounds measure the extent to which Weyl sums can "concentrate" on lower-dimensional (and possibly rough) regions of space. These estimates are related to the (much harder) pointwise convergence problem for the periodic Schrodinger equation. They are also related to the Talbot effect from optics. (Received August 23, 2021)