1172-42-119 **Joris Roos**, **Andreas Seeger** and **Rajula Srivastava***, rsrivastava9@wisc.edu, Madison, WI 53715. *Lebesgue space estimates for spherical maximal functions on Heisenberg groups.*

We discuss $L^p \to L^q$ estimates for local maximal operators associated with dilates of codimension two spheres in Heisenberg groups, sharp up to two endpoints. The proof shall be reduced to estimates for standard oscillatory integrals of Carleson-Sjölin-Hörmander type, relying on the maximal possible number of nonvanishing curvatures for a cone in the fibers of the associated canonical relation.The results can be applied to improve currently known bounds on sparse domination for global maximal operators. We shall also discuss sharp results for the lacunary variant of the maximal operator. (Received August 22, 2021)