

1148-35-185

**YanYan Li\*** (yyli@math.rutgers.edu) and **Siyuan Lu**. *Monge-Ampère equation with bounded periodic data*. Preliminary report.

A classical result of Jörgens, Calabi and Pogorelov states that any convex smooth solution  $u$  of  $\det(D^2u) = \text{constant}$  in  $R^n$  must be a quadratic polynomial. The following extension was established by Caffarelli and the first named author : any convex solution  $u$  of  $\det(D^2u) = f$  in  $R^n$ , with  $f$  being positive, periodic and Hölder continuous, must be the sum of a quadratic polynomial and a periodic function. In this work, we weaken the regularity assumption of  $f$  from Hölder to boundedness. (Received February 02, 2019)