1108-35-407

L Korobenko, Hamilton, Ontario, Canada, C Rios, Calgary, Alberta, Canada, E Sawyer*, 1280 Main St. W., Hamilton, Ontario, Canada, and R Shen, Hamilton, Ontario, Canada. Local boundedness and continuity of weak solutions to certain infinitely degenerate elliptic equations with rough coefficients. Preliminary report.

We report on work in progress on establishing local boundedness and continuity of weak solutions to L = (d/dx)2 + f(x)(d/dy)2 where f is rough and vanishes to infinite order at 0. The corresponding case when f is smooth in known to be hypoelliptic from work of Fedii. (Received January 19, 2015)