Lyudmila Korobenko and Cristian Rios* (crios@ucalgary.ca), Department of Mathematics and Statistics, 2500 University Dr. NW, Calgary, AB T2N 1N4, Canada. Regularity of solutions to degenerate elliptic equations under non-doubling conditions. Preliminary report.

We prove that every weak solution to a certain class of infinitely degenerate quasilinear equations is continuous. A special feature of the operators we consider is that Lebesgue’s measure in not required to be doubling in the associated Fefferman-Phong metric. (Received August 14, 2014)