

1172-35-110

Diego Maldonado* (dmaldona@math.ksu.edu). *A Harnack inequality for certain degenerate/singular elliptic PDEs shaped by convex functions.* Preliminary report.

Certain convex functions on \mathbb{R}^n produce quasi-distances as well as Borel measures on \mathbb{R}^n . Furthermore, their Hessians can shape degenerate/singular elliptic operators. We will examine geometric and measure-theoretic conditions on convex functions that allow to prove a Harnack inequality for solutions to their associated elliptic operators. (Received August 21, 2021)