Reviewer's Report

on the paper

MAXIMUM PRINCIPLE FOR SOLUTIONS OF THE MODIFIED NEWTONIAN GRAVITATIONAL POTENTIAL EQUATION IN AN UNBOUNDED DOMAIN

by

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In the reviewing manuscript, solutions of the differential equation

$$\operatorname{div}\left(\frac{|\nabla u|\nabla u}{\sqrt{1+|\nabla u|^2}}\right) = g(x) \quad \text{in } \mathbb{R}^n,\ 1 \le n \le 3, \tag{1}$$

are studied, where $g \in C(\mathbb{R}^n)$ is some function with a compact support.

Main results of the paper are Theorems 1 and 2. Theorem 1 claim that any bounded classical solution of (1) satisfies the inequalities

$$\min_{S_R} u \le u(x) \le \max_{S_R} u$$

for all $x \in \mathbb{R}^n \setminus B_R$, where S_R and B_R are the open sphere and the open ball of radius $R > 0$ centered at zero. Theorem 2 contains conditions for solutions of (1) to have a limit as $x \to \infty$.

In my opinion, the reviewing manuscript is an interesting scientific research. I recommend to public it in the Siberian Electronic Mathematical Reports.