SHARP INEQUALITIES CONNECTED TO THE HOMOGENIZED $p$–POISSON EQUATION

DAG LUKKASSEN

Abstract. In this paper we study inequalities for the effective energy density associated with the homogenized $p$-Poisson equation. We prove that the inequalities are sharpest possible and we even find all cases of equality. Our results implies uniqueness of rank 1 laminates within the class of multi-phase structures.

Key words and phrases: Sharp inequalities, homogenization, $p$-Poisson equation, composite structures.

REFERENCES