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A Lower Semicontinuity Result in SBD

A lower semicontinuity result is proved in the space of special functions of bounded deformation for a fracture energetic model according to Barenblatt's theory, i.e.

$$\int_{J_u} \varphi([u] \cdot \nu_u) d\mathcal{H}^{N-1} , [u] \cdot \nu_u \geq 0 \quad \mathcal{H}^{N-1} - \text{ a.e. on } J_u.$$

Keywords: Lower semicontinuity, fracture, special functions of bounded deformation, convexity, subadditivity.

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