

An optimum version of the trace embedding for functions of bounded variation

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Resumen.

This work addresses an optimum version of the trace inequality expressing the embedding $BV(\Omega) \subset L^1(\partial\Omega)$, the first space standing for the functions of bounded variation in a domain $\Omega \subset \mathbb{R}^N$. The emphasis is going to be placed on the regularity that the domain Ω should exhibit for this result to be valid. The consequences on the lower semicontinuity of the functional $J(u) = \int_{\Omega} |Du| + \int_{\partial\Omega} F(x, u)$ will be also discussed.

Palabras clave: Trace inequality, functions of bounded variation, sets of finite perimeter.

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