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Entropy Solutions for Variable Exponent Elliptic Problems on Riemannian Manifolds

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Abstract

This work is devoted to the study of a Dirichlet problem in divergence form with variable growth, modeled on the p(x)-Laplace operator. Under the minimal assumption that the data belong to L^1, we prove the existence of an entropy solution by means of truncation techniques and compactness arguments tailored to variable exponent Sobolev spaces.

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