
Abstract: We prove a stability result, with respect to the varying exponent $p$, for a family of quasiminimizers of the $p$–Dirichlet energy functional on a doubling metric measure space. In addition we prove global higher integrability for upper gradients of quasiminimizers with fixed boundary data, provided the boundary data belongs to a slightly better Newtonian space.

AMS subject classifications: Primary: 49Q20, Secondary: 31C45, 49N60

Keywords: Caccioppoli inequality, capacity, doubling measure, Gehring lemma, metric space, Newtonian space, $p$–fatness, Poincaré inequality, quasiminimizer, stability

Correspondence
Outi Elina Maasalo
Institute of Mathematics, Helsinki University of Technology
P.O. Box 1100
FI–02015 Helsinki University of Technology, Finland
outi.elina.maasalo@hut.fi

Anna Zatorska–Goldstein
Institute of Applied Mathematics and Mechanics, University of Warsaw
Banacha 2
PL–02–097 Warsaw, Poland
azator@mimuw.edu.pl

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Helsinki University of Technology
Department of Engineering Physics and Mathematics
Institute of Mathematics
P.O. Box 1100, 02015 HUT, Finland
email:math@hut.fi http://www.math.hut.fi/