Outi Elina Maasalo: Gehring Lemma in Metric Spaces; Helsinki University of Technology, Institute of Mathematics, Research Reports A497 (2006).

Abstract: We present a proof for the Gehring lemma in a metric measure space endowed with a doubling measure. As an application we show the self improving property of Muckenhoupt weights as well as higher integrability of Jacobians of quasisymmetric mappings.

AMS subject classifications: 42B25

Keywords: doubling measure, quasisymmetric mapping, metric space, Muckenhoupt weight, reverse Hölder inequality

Correspondence

Outi.Elina.Maasalo@tkk.fi

ISBN 951-22-8128-7 ISSN 0784-3143

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/