1051-30-193 Nageswari Shanmugalingam* (nages@math.uc.edu), Department of Mathematical Sciences, P.O.Box 210025, University of Cincinnati, Cincinnati, OH 45221-0025, Pekka Koskela, Department of Mathematics and Statistics, P.O.Box 35 (Mattilaniemi D), FI-40014 University of Jyvaskyla, FI-40014 Jyvaskyla, Finland, and Michele Miranda (michele.miranda@unife.it), Department of Mathematics, University of Ferrara, Via Machavelli 35, 44100 Ferrara, Italy. Geometric characterization of planar BV extension domains.

We will discuss Euclidean domains that are extension domains for functions of bounded variation (BV). A characterization of Burago and Maz'ya of such domains reduces the condition of BV extension domains to extension properties of sets of finite perimeter. In the case that the domain is planar and finitely connected, we give explicit geometric characterization of BV extension property that is much simpler to verify than the condition of Burago-Maz'ya. (Received August 24, 2009)