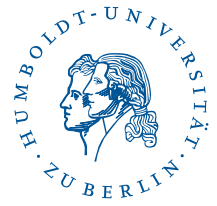Humboldt-Universität zu Berlin
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Non-Conforming Methods for Functions of Bounded Variation Bachelor Thesis

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Contents

1 Introduction

[ABM] modelization of a large number of problems in physics, mechanics, or image processing requires the introducion of new functionals spaces permitting discontinuities of the solution. In phase transitions, image segmentation, plasticity theory, the study of crasks and fissures, the study of the wake in fluid dynamics , and so forth, the solution of the problem presents discontinuities along one-odimensionalmanifolds. -solution of these problems cannot be found in classical Sobolev spaces

[Braided] 1st page: image reconstruction might be our functional

2 Functions of Bounded Variation

Definition 2.1 (Functions of bounded variation.). f is said to be of bounded variation if

$$f = 2$$

3 Chapter Number two

Theorem 3.1 (first thm in chaoter 2). *dat it is*

Proof. trivial □