

Uniqueness of a quasivariational sweeping process on functions of bounded variation

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Abstract. We prove existence and uniqueness of a quasivariational sweeping process on functions of bounded variation thereby generalizing previous results for absolutely continuous functions. It turns out that the size of the discontinuities plays a crucial role: In case they are small enough we prove existence and uniqueness. For large jumps we present a counterexample to the uniqueness of the solution. Finally we show that the condition on the jump size can be replaced by suitable conditions on the shape of the convex set.

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