# Nonconvex regularization for inverse problems

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Abstract

We consider Tikhonov type regularization models. The main interest is on variational regularization on the space of functions of bounded variations. First we consider regularization models for intensity errors and then with displacement errors. The later variational principles are nonconvex and have to be tranformed that efficient algorithms are applicable. Convexification and Quasi-convexification principles as well as Gamma convergence are discussed.