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Abstract

In recent years a number of techniques have appeared that involve operator splitting strategies for identifying cracks. While the specifics of these methods may differ, they share similar algorithmic recipies that amount to alternating projections of one form or another. There is a vast literature on projection algorithms, however none of this applies to the application to crack detection since the problem is nonconvex. We tackle the problem of nonconvex projection algorithms. We propose relaxation strategies that stabilize the algorithms and provide reliable stopping criteria.