

Sublabel-Accurate Relaxation of Nonconvex Energies

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In this talk I will present a novel convex relaxation technique for a particular class of energy functionals consisting of a pointwise nonconvex data term and a total variation regularization as frequently used in image processing and computer vision problems. The method is based on the technique of functional lifting in which the minimization problem is reformulated in a higher dimensional space in order to obtain a tighter approximation of the original nonconvex energy. Several numerical experiments demonstrate the effectiveness of the proposed approach.