

Characterization of the Solution of Linear Inverse Problems with Generalized TV Regularization

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Abstract: Ill-posed inverse problems are often constrained by imposing a bound on the total variation of the solution. Here, we consider a generalized version of total-variation regularization that is tied to some differential operator L . We then show that the general form of the solution is a nonuniform L -spline with fewer knots than the number of measurements.