

962-49-839

francois malgouyres* (malgouy@math.ucla.edu), UCLA Dept of Mathematics, 6363 Math science building, Box 951555, Los Angeles, CA 90095-1555. *Analysis of some variational aliasing removal.*

We propose a maximum a posteriori method to simultaneously deblur, oversample or remove aliasing from images. This method is based on the minimization of the total variation but the presented results can be generalized to other smoothness criterion. Moreover, we show to evidence the drawback of the most simple model by means of the analysis of the preservation of some structural elements, and modify this simple model according to this analysis. We also show that solutions of this continuous model can be approximated by computed digital images. (Received September 27, 2000)