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A PDE variational approach to image denoising and restoration. (English) Zbl 1169.35341
Nonlinear Anal., Real World Appl. 10, No. 3, 1351-1361 (2009).

Summary: We discuss a general variational model for image restoration based on the minimization of a convex functional of gradient under minimal growth conditions. This approach is related to minimization in bounded variation norm and has a smoothing effect on degraded image while preserving the edge features.

MSC:

[35K55](#) Nonlinear parabolic equations

[94A08](#) Image processing (compression, reconstruction, etc.) in information and communication theory

[35A15](#) Variational methods applied to PDEs

Cited in **23** Documents

Keywords:

image restoration; convex functions; Sobolev space; nonlinear diffusion; minimal growth conditions

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