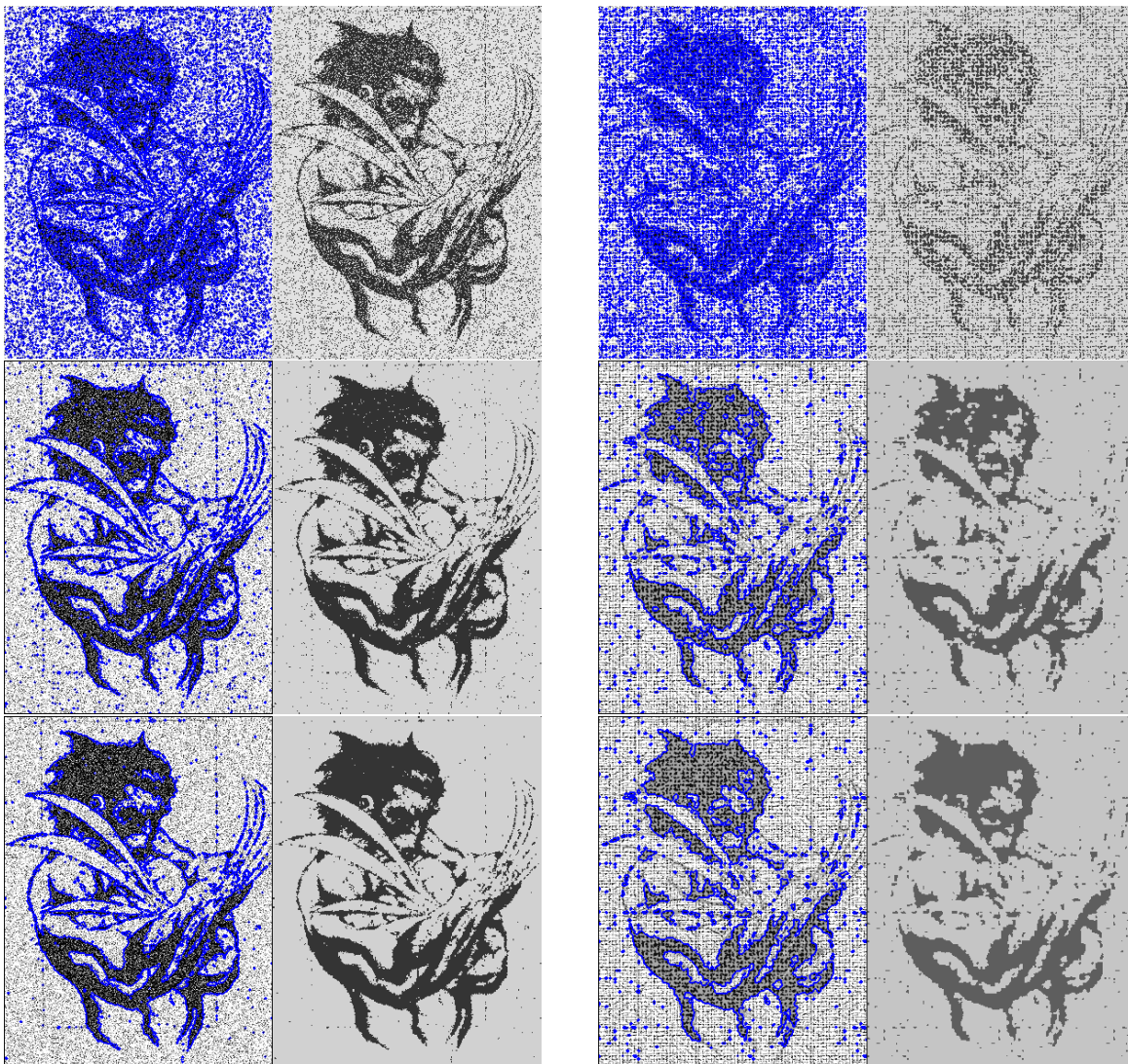


**Alternative initialization.** In the examples in the paper,  $\phi_0$  is a paraboloid. In my implementation, I set  $T = \frac{1}{2}(\min u_0 + \max u_0)$  and construct a smooth function  $\phi_0$  such that  $\text{sign}(\phi_0) = \text{sign}(u_0 - T)$ . With this, fewer iterations are usually needed to converge.

**Other details.** My implementation is in C++ using double floating-point arithmetic and performed on a 1.8 GHz Pentium 4 with 1280 MB of RAM. I do not use reinitialization.

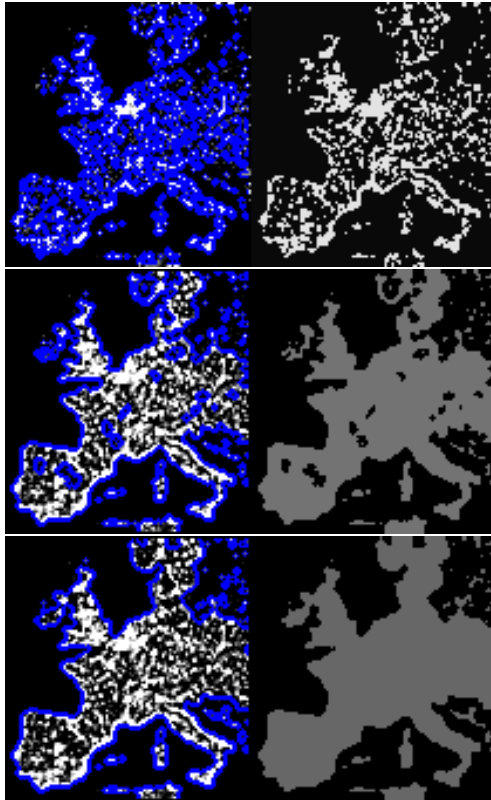
**Cartoon restoration.** A cartoon is corrupted with additive white noise and restored (left). The black and white regions are replaced by two different textures (right).



Noisy Wolverine. Size =  $300 \times 393$ ,  $\mu = 0.22$ ,  
 $\nu = 0$ ,  $\lambda_1 = \lambda_2 = 0$ ,  $\Delta t = \frac{1}{2}$ , cpu = 0.86 s.

Pattern Wolverine. Size =  $300 \times 393$ ,  $\mu = 0.19$ ,  
 $\nu = -0.0025$ ,  $\lambda_1 = \lambda_2 = 0$ ,  $\Delta t = \frac{1}{2}$ , cpu = 12.83 s.

**Europe night-lights.** I was unable to reproduce the “Europe night-lights” example in the paper with the parameters  $\mu = 0.05 \cdot 255^2$ ,  $\nu = 0$ ,  $\lambda_1 = \lambda_2 = 1$ . However, tweaking the parameters yields approximately the same result.



Europe night-lights. Size =  $105 \times 113$ ,  $\mu = 0.014$ ,  $\nu = -0.001$ ,  $\lambda_1 = 1$ ,  $\lambda_2 = 0$ ,  $\Delta t = \frac{1}{2}$ , cpu = 3.97 s.

## References

- [1] T. CHAN AND L. VESE. “Active Contours Without Edges.” *IEEE Trans. on Image Proc.*, vol. 12, no. 2. Feb. 2001.