
Subject: Re: Reconstruct surface from gradient field?
Posted by [Craig Markwardt](#) on Sat, 15 Feb 2014 01:26:25 GMT
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On Friday, February 14, 2014 8:22:46 PM UTC-5, Craig Markwardt wrote:
> On Thursday, February 13, 2014 5:24:22 PM UTC-5, David Grier wrote:

> There might be some heuristic way to iterate towards the solution, I'm not sure. Poisson's equation has a nice solution like that, but you don't have a Poisson's equation unless you take a (even more noisy) derivative of your measured data.

This page might have some interesting ideas.
<http://dsp.stackexchange.com/questions/2859/how-do-i-numerically-calculate-a-function-from-its-noisy-gradient>

... especially the Frankot-Chellappa discussion. If you solve this by FFT, you will still need some kind of spatial filter to de-weight the measurement noise.

Craig
