Subject: Re: Theil-Sen slope estimator algorithm?
Posted by Russell[1] on Fri, 30 Sep 2011 19:16:45 GMT
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I'm not sure if this is the same algorithm or not, I doubt that is.
But, this code does do a pretty good job at fitting y(x)=a+b*x, even
when the y values are somewhat scattered (like the graph on the wiki
article).

http://idlastro.gsfc.nasa.gov/ftp/pro/robust/robust_linefit. pro

You'll need to grab a few other things from the IDL Astrolib, so I'd
recommend just getting the whole library at:

http://idlastro.gsfc.nasa.gov/ftp/

the file you need is:

astron.dir.tar.gz

Good luck, Russell

On Sep 30, 10:39 am, Ed Hyer <ejh...@gmail.com> wrote:
> Hello IDL crowd,
>
> I've been reading about this non-parametric estimator, which really
> seems to have many desirable properties for extracting credible
> relationships with uncertainty estimates from noisy
datasets:http://en.wikipedia.org/wiki/Theil%E2%80%93Sen_esti mator
>
> Thing is, the algorithm is based on a method that includes the term
> "all pairs of points," which spells trouble. The Wikipedia article
> says there are algorithms more efficient than the O(n-squared) brute
> force method. Anyone know if any of these has been implented in IDL?
>
> Thanks,
>
> --Edward H.