Subject: Re: Labelling Highs/Lows in contour
Posted by Phillip & Suzanne[2] on Thu, 13 Aug 1998 07:00:00 GMT
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David Fanning wrote:
>
> Amit (amit@physics.utoronto.ca) writes:
>
>> Is there a way to automatically label highs and lows on a contour plot ? For
>> example place an L or H in a trough or peak respectively.
>
> I think you stumbled into the wrong newsgroup. I think
> you want alt.simple.meteorology. This is a group for
> IDL programmers. :-)

Shame on you, David. You're usually nice and polite, and I was quite shocked to see such a response from you! Assuming Amit really wanted to make a meteorological-type plot using IDL's contour routine, he did ask in the correct place.

At a guess, I would write the contour the usual way, then find the max and min of the underlying data, calculate coordinates into the plot based on the locations of the max and min, and place (in overplot mode -- I don't remember the name of the function to do this) an L at the min and an H at the max. That's the simplest algorithm I can think of.

> Cheers,

> David

> P.S. Does anyone know how to find the slope of
> a 2D array. :-(

I'd recommend posting this question separately.

I assume you'd like to find the localized slope at each of the points in the array. You'll probably have to find the slope along a given intercepting plane, such as the x or y axis. For cuts running along the x or y axes, you could probably fake it by taking the slope of the points on that particular cut. For cuts at an angle, this is going to be nasty...

My next thought is that this might just be the first derivative of the function generating your surface. If that's the case, take a derivative if you know the function. If you don't know the function that defines your surface, however, good luck...

Phillip (& Suzanne) David
Trying to dredge up a little of our college math...