Subject: Re: Placing constraints on Interpol
Posted by Conor on Tue, 04 Sep 2007 12:17:26 GMT
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On Sep 3, 3:23 pm, Vidhya <vidh...@gmail.com> wrote:
> Dear All,
>
> Is it possible in IDL to place constraints while interpolation such
> that the elements should not be zero and all the elements add up to 1?
>
> Any ideas?
>
> Vidhya

It would seem to me that this would depend on the details of your data set. For starters, if you don't want anything to interpolate to zero then you should split up the interpolation into two steps - once for the positive, once for the negative. As for making everything add up to one, I don't see the way to do that, conceptually. After all, for everything to add up to one will depend on a) the 'magnitude' of the values you are interpolating between and b) the number of elements you are interpolating. If you have a large number of elements and you want to add them up to one, then the values you are interpolating between MUST be much smaller than one. Either that, or after the interpolation is done just weigh the elements so they add up to one. i.e. elements /= total(elements)

Subject: Re: Placing constraints on Interpol
Posted by mattf on Tue, 04 Sep 2007 14:22:34 GMT
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> Vidhya

Generally, natural constraints on interpolation are -local- (e.g., constraints on the value or slope of interpolated data), but the constraints you're talking about sound global. This suggests that you should work backwards-- start out with an approximate global solution that satisfies your global constraints, and then make small variations on that starting solution (based on local data) that maintain the

constraints.