
Subject: Re: find bimodal maximum in each row
Posted by [vijay](#) on Sat, 05 Feb 2011 03:32:40 GMT
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On Feb 5, 1:57 am, Jeremy Bailin <astroco...@gmail.com> wrote:
> On Friday, February 4, 2011 4:02:47 AM UTC-5, vijay wrote:
>> I have an array of 512x512 and for each row there is a
>> bimodal like peak. I want to find this peak in each row (ex. first
>> peak value 177 and second peak value 244, etc). Like that each row
>> will have two different peak
>> values. How to obtain these peak values for the whole array and result
>> them in new array.
>
> If you can guarantee that the peaks will not occur in the first or last column of each row, this will
give you every single local maximum:
>
> q = [[0,1,2,1,2,1,0], [1,2,0,0,2,2,0], [0,2,2,2,0,1,0]]
> nx = (size(q, /dimen))[0]
>
> ; is this a local maximum? (note that the index starts at element 1,* of q)
> peakp = (q[1:nx-2,*] gt q[2:nx-1,*]) and (q[0:nx-3,*] le q[1:nx-2,*])
> ; where is that true?
> peaklocations = where(peakp)
> ; turn into array locations into peakp
> peaklocations_xy = array_indices(peakp, peaklocations)
> ; increment the x coordinate because peakp is shifted one element to the right of q
> peaklocations[0,*]++
> ; what are the values of q there?
> peakvals = q[peaklocations_xy[0,*], peaklocations_xy[1,*]]
>
> IDL> print, peaklocations_xy
> 2 0
> 4 0
> 1 1
> 5 1
> 3 2
> 5 2
> IDL> print, peakvals
> 2
> 2
> 2
> 2
> 2
> 1
>
> Note that it will pick up every single local maximum, regardless of how many there are per row.
>
> -Jeremy.

hi jeremy,

that will give the peak values in one dimensional, but i want the peak values in an array as the same size of input array and non-peak tends to be zero. Thus i will have an array (bcos i am finding peak in image in each row).
