Subject: Re: majority voting
Posted by ben.bighair on Wed, 11 Feb 2009 18:13:20 GMT
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On Feb 11, 11:14 am, mort canty <m.ca...@fz-juelich.de> wrote:
> Hi all,
>
> Given a 2-D array such as
>
> 0 1 1 2 1
> 0 2 1 1 1
> 1 0 2 2 1
>
> where the entries are labels, the columns represent items and the rows
> are voters, I want a IDL function that returns the majority vote labels.
> So here I should get
>
> 0 ? 1 2 1
>
> as output, where ? = "don't care". There must _not_ be a loop over
> columns. I've got a clumsy solution, but I'm sure there's an elegant one
> somewhere?

Hi,

This is incomplete as it doesn't flag the "don't care" crowd. I can't noodle that part out without column looping. Looping would make it easy to use something like...

```
for i = 0, ncol-1 do dontCare[i] = ARRAY_EQUAL(votes[i,*],votes[i,0])
```

but by your rules, that is out of bounds.

```
***BEGIN
x=[[0,1,1,2,1],$
[0,2,1,1,1],$
[1,0,2,2,1]]
sz = SIZE(x, /DIM)
votes = [[TOTAL(x EQ 0, 2)],$
  [TOTAL(x EQ 1,  2)], $
  [TOTAL(x EQ 2, 2)]]
mx = MAX(votes, mxIdx,dim = 2)
majority = (array_indices(sz, mxIdx, /dim))[1,*]
print, majority
***END
```

Cheers,

Ben