
Subject: Re: SMOOTH or TS_SMOOTH

Posted by [lecacheux.alain](#) on Wed, 21 Nov 2012 14:28:29 GMT

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Le mercredi 21 novembre 2012 14:09:46 UTC+1, mark...@gmail.com a écrit :

> Typing code too quick....corrected version

>

>

>

> X = 50

>

> N = 3

>

> arrayData = dindgen(X)

>

> arrayBackwardMovingMean = dblarr(X)

>

> for i = 0, X - 1 do arrayBackwardMovingMean[i] = mean(arrayData[min([0, i - N] : i)])

A more "IDL" way (untested) might be :

```
pad = !Values.F_NAN + dindgen(N)
```

```
print, mean(reform([pad,reform(rebin([arrayData,pad],X+N,N),(X*N)*N)],X+N+1,N),DIM=2,/NAN)
```

or, more explicetely:

```
print,mean( $
  reform( $
    [pad,reform(rebin([arrayData,pad],X+N,N),(X*N)*N)] $ ;replicate and pad your array N times
    ,X+N+1,N), $ ;do the shift
    DIM=2, $ ;do the average
    /NAN) ;handle the bounds
```

alx.
