
Subject: Re: Finding Backward trajectory of wind data
Posted by [Kenneth P. Bowman](#) on Fri, 02 Dec 2011 14:38:23 GMT
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In article <e30fbc78-c426-4192-9c91-f75537fd9495@b32g2000yqn.googlegroups.com>, shambhu <shambhu.mca36@gmail.com> wrote:

> Hi all,
>
> Am having a file(air.2000.nc) which consists of
> lat,lon,level(height),time(date) which is 6 hourly data. M trying to
> find nearest point & then to find trajectory. Am not getting how to
> find for lat=42, lon=79. Below is the code am using, which is answered
> in this forum. But am facing some probs.
>
> pro ConnectGrids
> ; First grid
> n1 = 72
> x1 = air ;file var
> y1 = air
>
> ; Find closest: method 1
> triangulate, x1, y1, c ; Compute Delaunay triangulation
> connect = GRIDDATA(x1,y1, air, Xout=x2, Yout=y2,\$
> /NEAREST_N,TRIANGLES =c)
>
>
> please help me on this. looking forward
>
> thanks in adv

The file air.2000.nc probably contains air temperatures, which won't help you very much with computing trajectories. Look at the metadata and see.

In principle, calculating trajectories is easy. You just solve the coupled ODE's

$$dx/dt = v(x,t), x(0) = x_0$$

where x is the position vector, v is the velocity vector, and t is time.

In practice, this is a complex problem with many subtleties. I suggest that you look into one of the publicly available trajectory models like HYSPLIT or FLEXPART.

I think that you need much more help with this than you will be able to get in this newsgroup.

Ken Bowman
