Hello

I used a function called Gradient by Ding Yuan(Ding.Yuan@warwick.ac.uk)

to calculate gradient of geopotential height.

It uses shift and centered finite difference. My question would be what would be the unit of the gradient. Unitless

But I input to the gradient function with climate model output data (i.e. geopotential height (Scalar), which is interpolated to 2.5 by 2.5 degree latitude and longitude).   Do I need to convert the units from degree to meters ?

result=gradient(data)

This would be in units of   meter/degree. I would think i need to convert my result to unitless by multiplying the result with [2.5* 111000 degree/meter].

1 degree = 111km

I have data with a resolution of 2.5 by 2.5 degree .

What do you all think ?

Thanks
Best regards