Use of cell\_measures and cell methods in a fregrid regridding algorithm.

Below is a summary of the part of the function *do\_scalar\_conserve\_interp()* used by fregrid*.*

Algorithm Assumptions and Conventions:

1. Algorithm below is for 1st order conservative interpolation regridding; this shortened summary version assumes there is only one elevation and only one tile.
2. Desired mapping is from (source) to (target), and an exchange grid ( between the two has been calculated. For every cell of wil have indices into one or more cells of .
3. Field/variable is mapped onto and to be called
4. Cell\_cell\_methods are specified as metadata per field. Cell\_measureswhen true for a field require an area specified per grid cell of the corresponding input grid).
5. Cell\_measures default is ; cell\_methods default is , and the alternative is
6. - defined as “fraction of cell area”
7. is the number of cells in the longitudinal (X) coordinate.

Algorithm:

* 1. //(I.e. The area of overlap of cells index by )