**Paraview 5.13 visualisation coupled-wave-tank simulation**  
Paraview changes a fair bit, so the instructions below can become outdated but at least form a first port of call.  
  
Load files dw\_waves.pvd and sw\_waves.pvd into the Pipline Browser; press apply  
Then unclick sw\_waves.pvd

*Make gradient of phi*  
Click on/highlight dw\_waves.pvd (if not kept on)  
Go to (top menu) Filters, Alphabetical, Gradient; that generates Gradient1;  
(top menu) Filter, Apply apply Calculator, Makes Calculator1  
Unclick Gradient1, but keep Calculator1 on.  
In Calculator1 go to Properties in pane on RHS under Pipeline Browser  
Got/Scroll to “scalars” (“Vectors| next to it) it has an up/down sign to right; in box right of that choose X; for X-gradient.  
Now also click again on sw\_waves.pvd

*Color bars* (make horizontal and set ranges)  
Go to (top menu) View and activate colorbar menu; in color bar menu click on second icon on vertical icon list to left of colourful graph. Something opens: unset automatic scale and choose horizontal; then also find the ranges.  
On top right of color bar menu there are 3 icon; choose right icon; menu opens to set label name.  
  
Unclick Calculator1 and click sw\_waves.pvd; do the same and set same ranges and label. One does not have to deactivate just highlighting allows one to pick variable/field for colorbar handling.

*Add beach topography*   
Note that when loaded it loads as coloured line with colour being the topography b(x), wapr by line displays in x-z plane while other data are in x-y place, such that warp-by-vector must be used with a modification to display in the x-y-plane as well, otherwise, graphs do not combine visually.  
Add file dw\_beach.pvd in Pipeline Browser  
Apply, then Filter, Alphabetical choice Calculator, make Calculator2  
Under Result:  
Choose jhat\*jHat\*beach\_sw  
Then (top menu) Filter, Alphabetical Warp by Vector  
  
Second box of 3 button in (top menu) View colormap editor; then colorbar panel, second one of top right of three panes, to hide/show color bar.

*Saving* as .psvm or .py files for reuse:

Got to (top menu) File, save state, either as .psvm or .py (Python) files.  
dwswbeach2025.pvsm, dwswbeachwave2025.pvsm, dwswbeachwave2025.py

**Animation speed and saving**: (top menu) ; File, save animation