

StagYinYangGeometry
2D/3D

Inherited functions
from *MainStagObject*

- .fieldType** field contains in the current instance (like 'Temperature' or 'Viscosity')
- .fieldNature** nature of the field ('scalar' or 'vectorial')
- .path** path to the staggy file
- .fname** file name of the read staggy file
- .resampling** resampling parameters
- .header** raw header of the staggy file
- .simuAge** dimensionless time of the simulation
- .ti_step** inner step of the stag simulation state
- .flds** raw data field of the staggy file
- .x_coords**
.y_coords
.z_coords raw x y and z coordinates contained in the staggy file header (pre-processed geometry but modified by the resampling)
- .slayers** matrix of selected (keep after resampling) layers
- .depths** depths in real Earth for each layers
- .rcmb** real radius of the Core-Mantle Boundary
- .nx0**
.ny0
.nz0 number of points in the x y and z direction in the original input file (before resampling)
- .nx**
.ny
.nz current number of points in the x y and z direction (after resampling and processing)

Own fields
uninherited

- .layers** corresponds to .slayers but without corners of the Yin Yang grid. One value per grid point after processing (same length as geometry matrices)
- .r1**
.r2 matrices of the radial coordinates of the Yin and Yang grids
- .x1**
.x2 matrices of the x coordinates of the Yin and Yang grids
- .y1**
.y2 matrices of the y coordinates of the Yin and Yang grids
- .z1**
.z2 matrices of the z coordinates of the Yin and Yang grids
- .v1**
.v2 matrices of the scalar field on the Yin and Yang grids (or L2-norm of vectorial field if vectorial field)
- .vx1**
.vx2 matrices of the x-component of the vectorial field on the Yin and Yang grids
- .vy1**
.vy2 matrices of the y-component of the vectorial field on the Yin and Yang grids
- .vz1**
.vz2 matrices of the z-component of the vectorial field on the Yin and Yang grids
- .P1**
.P2 matrices of the 'Pressure'-component of the vectorial field on the Yin and Yang grids (in the case of a 'Pressure-velocity' field)
- .vr1**
.vr2 matrices of the radial-component of the vectorial field on the Yin and Yang grids
- .vtheta1**
.vtheta2 matrices of the theta-component of the vectorial field on the Yin and Yang grids
- .vphi1**
.vphi2 matrices of the phi-component of the vectorial field on the Yin and Yang grids



