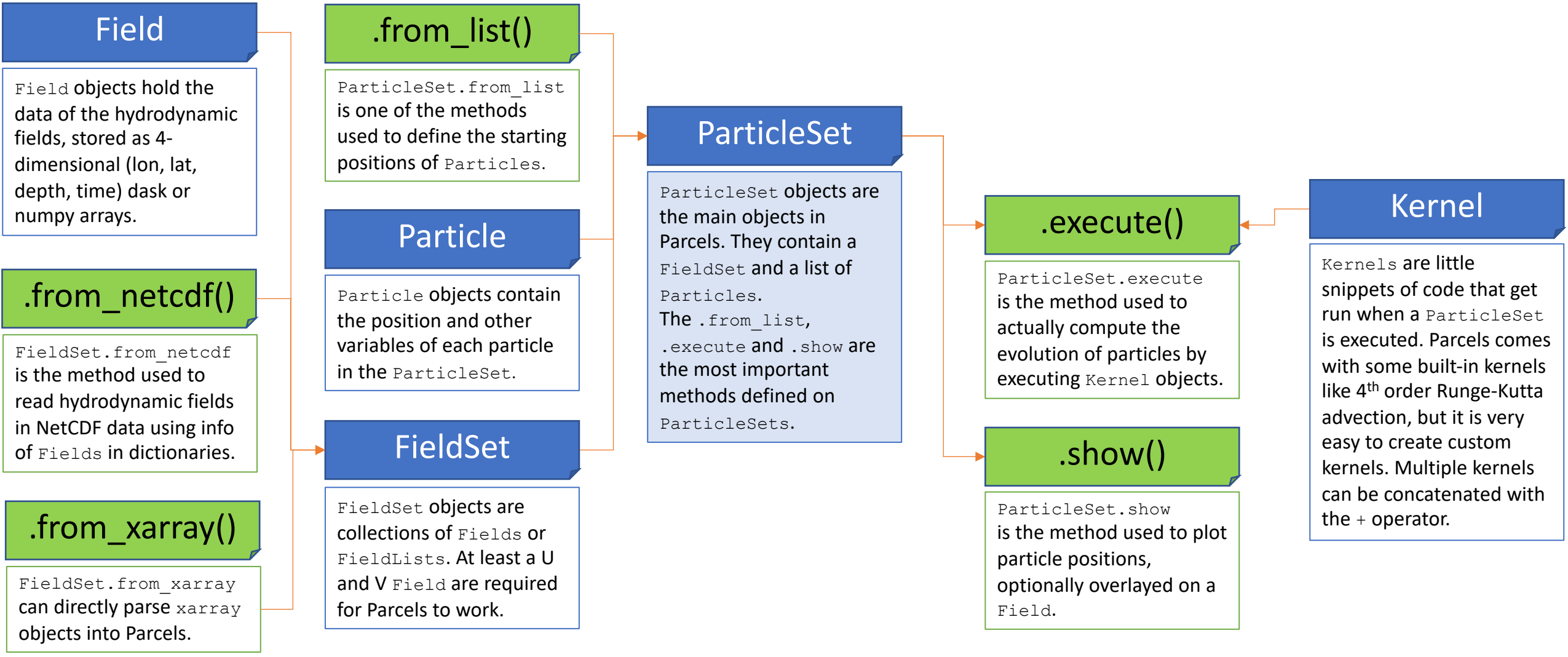
Field
Field objects hold the data of the hydrodynamic fields, stored as 4-dimensional (lon, lat, depth, time) dask or numpy arrays.
.from_netcdf()
FieldSet.from_netcdf is the method used to read hydrodynamic fields in NetCDF data using info of Fields in dictionaries.
.from_xarray()
FieldSet.from_xarray can directly parse xarray objects into Parcels.
.from_list()
ParticleSet.from_list is one of the methods used to define the starting positions of Particles.
Particle
Particle objects contain the position and other variables of each particle in the ParticleSet.
FieldSet
FieldSet objects are collections of Fields or FieldLists. At least a U and V Field are required for Parcels to work.
ParticleSet
ParticleSet objects are the main objects in Parcels. They contain a FieldSet and a list of Particles.
The .from_list, .execute and .show are the most important methods defined on ParticleSets.
.execute()
ParticleSet.execute is the method used to actually compute the evolution of particles by executing Kernel objects.
.show()
ParticleSet.show is the method used to plot particle positions, optionally overlayed on a Field.
Kernel
Kernels are little snippets of code that get run when a ParticleSet is executed. Parcels comes with some built-in kernels like 4th order Runge-Kutta advection, but it is very easy to create custom kernels. Multiple kernels can be concatenated with the + operator.