

# A PYTHON PACKAGE TO DERIVE GRIDDED SYNOPTIC CIRCULATIONS



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## How to install?

```

pip install jcclass
    
```

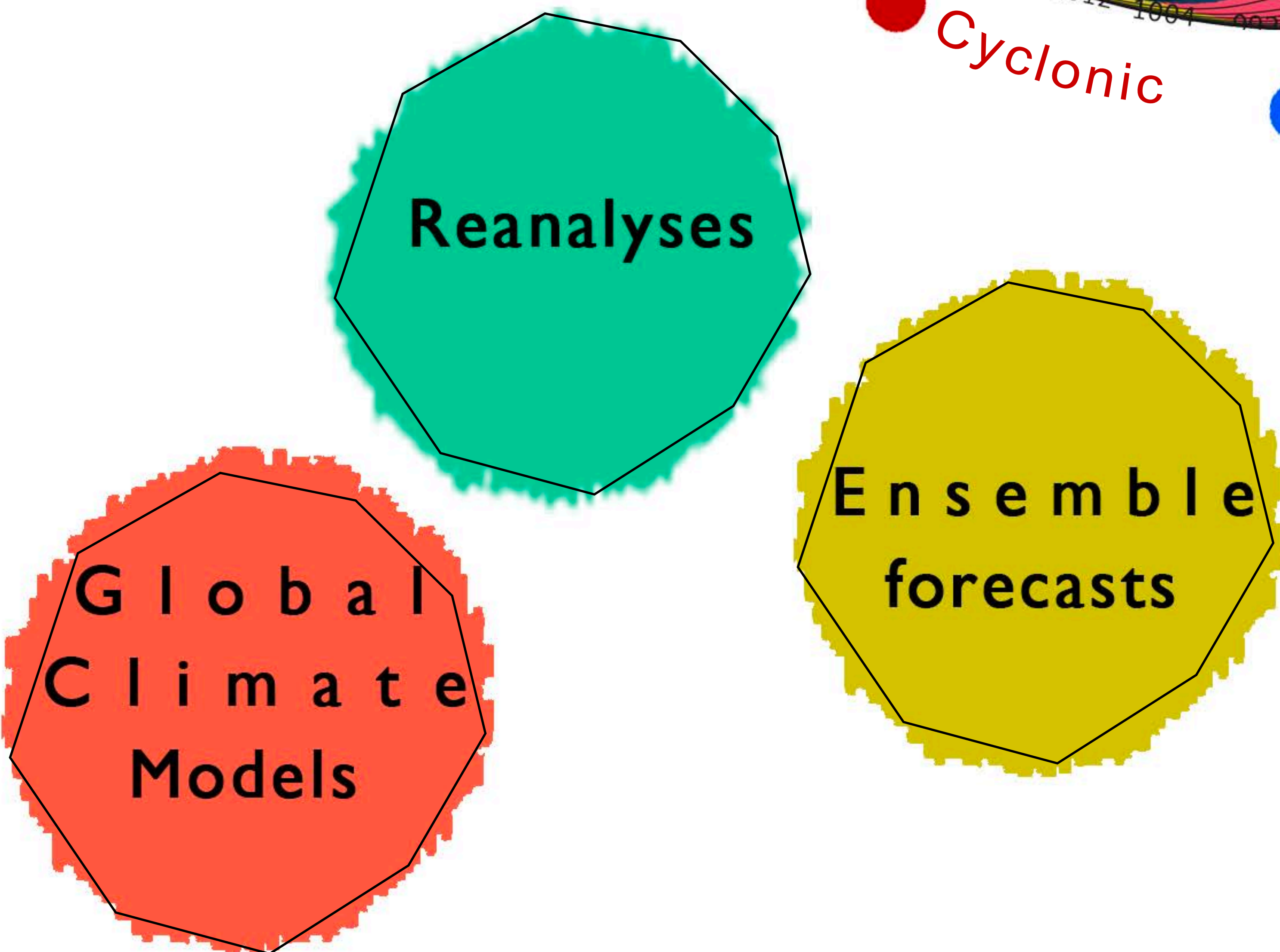


The **jcclass** is a Python library to derive gridded large-scale atmospheric surface circulations based on Mean Sea Level Pressure data. The synoptic circulations are extracted using the Jenkinson-Collison automated classification method (originated from the subjective Lamb Weather types classification). The module works with multiple datasets, derives the original 27 circulations, computes a reduced version of 11 types and allows to plot the patterns in three different ways.

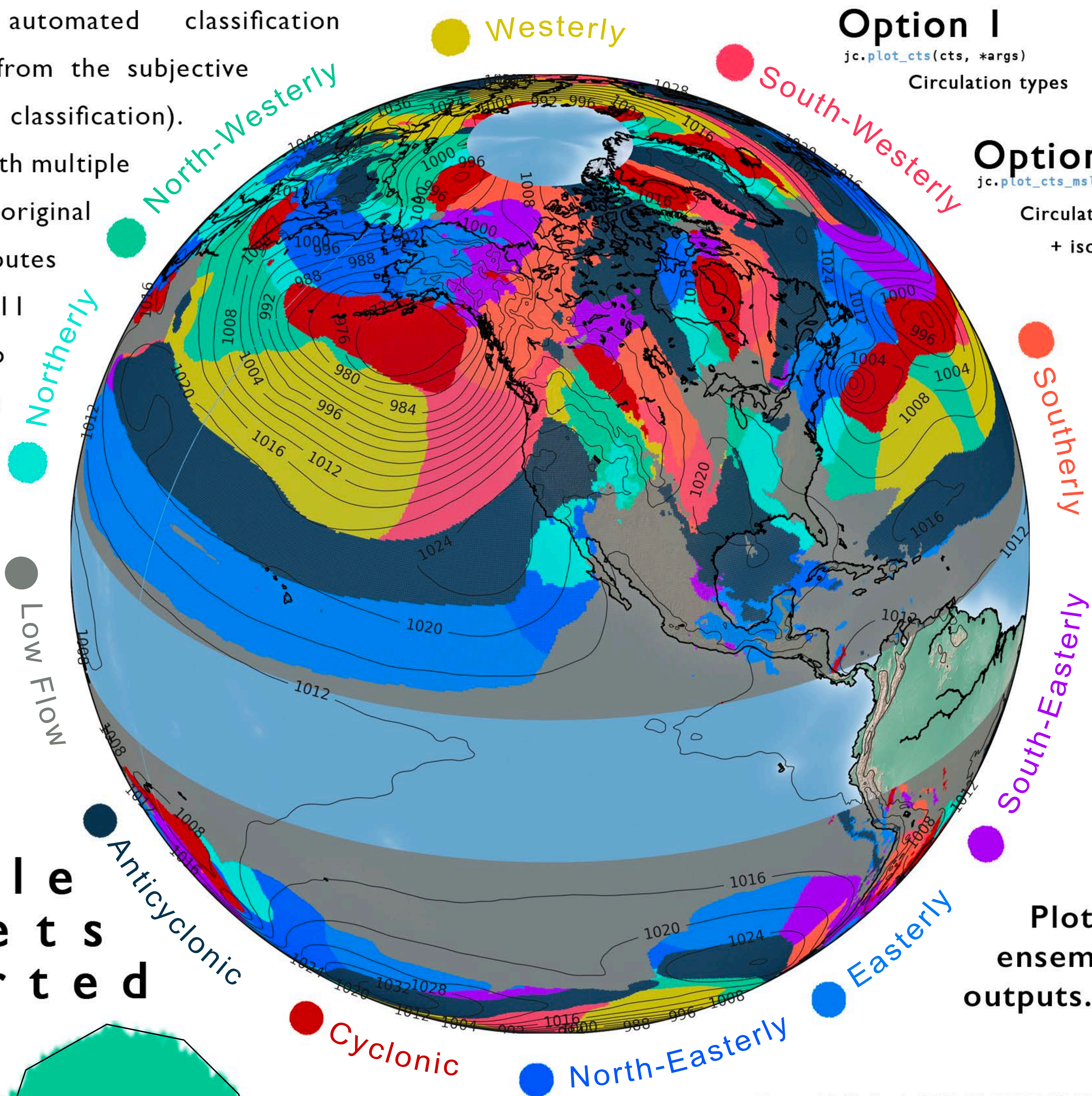
```

from jcclass import jc
cts=jc(filename).classification()
cts_11 = jc.eleven_cts(cts)
cts.to_netcdf('output.nc')
    
```

### Multiple datasets supported



## Plotting options:

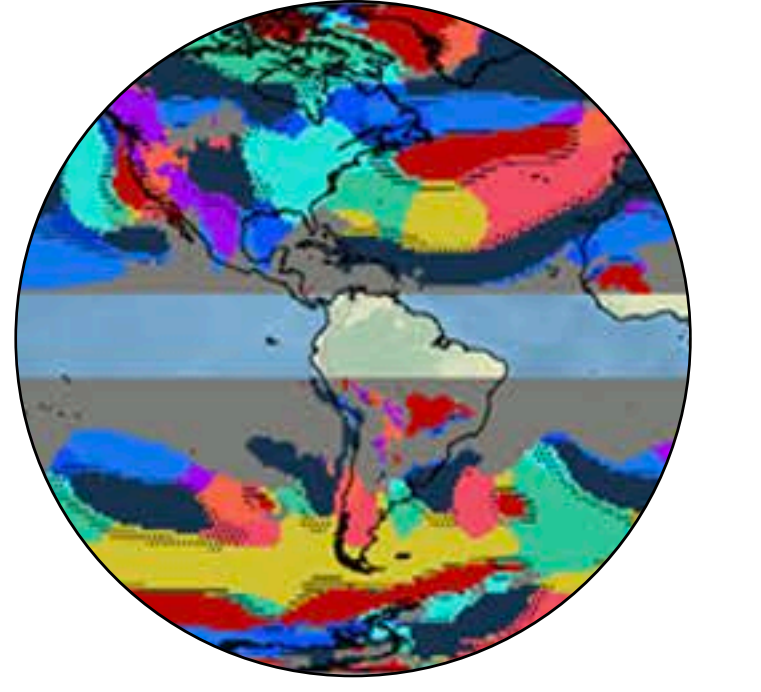


### Option 1

```

jc.plot_cts(cts, *args)
    
```

Circulation types

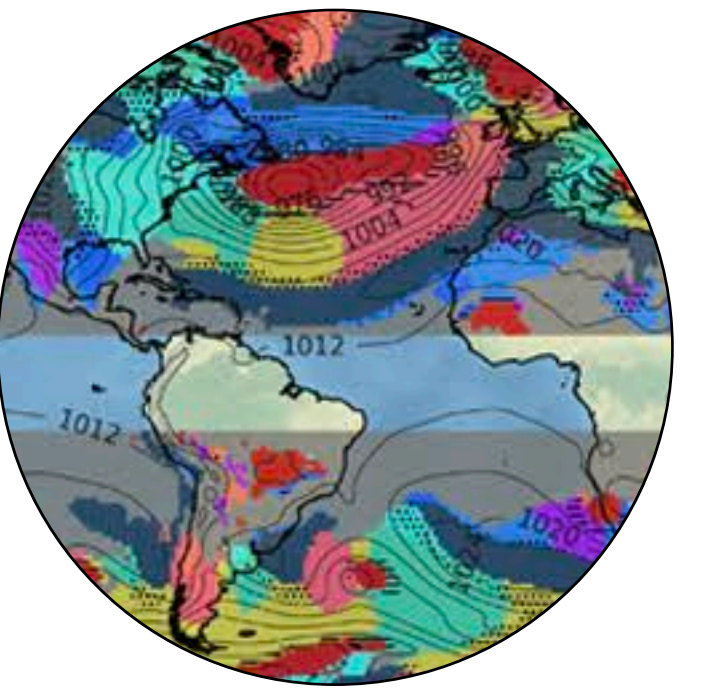


### Option 2

```

jc.plot_cts_mslp(cts, mslp)
    
```

Circulation types + isobars

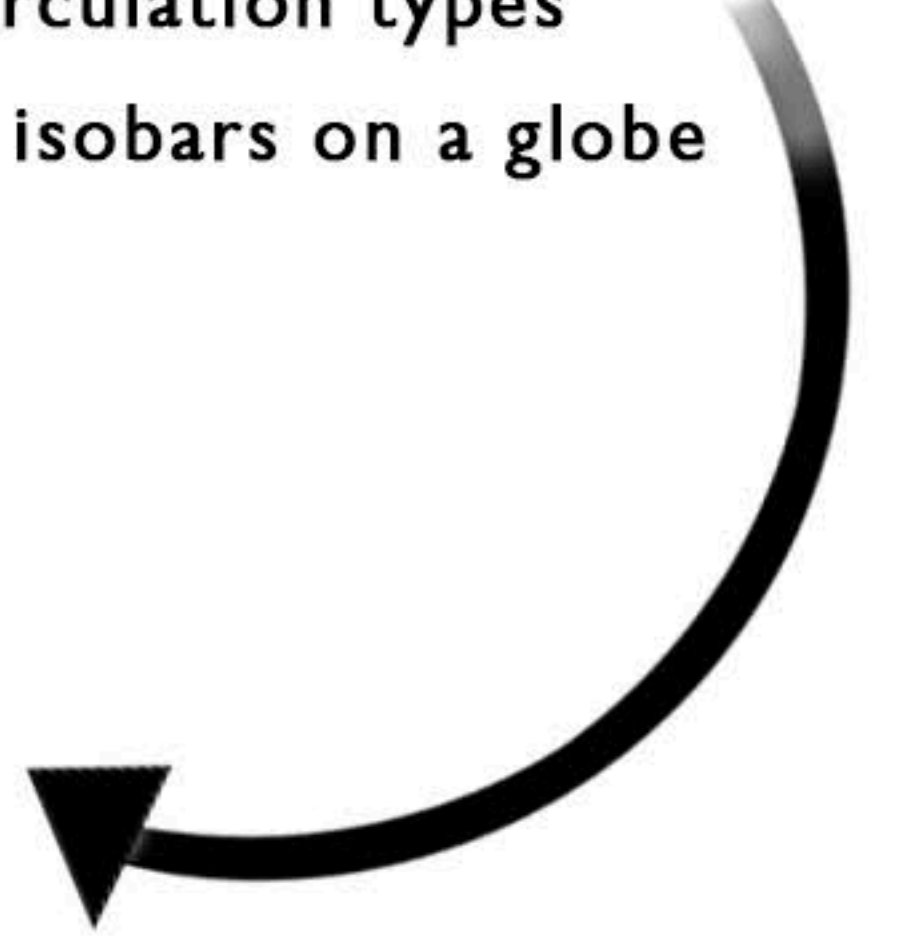


### Option 3

```

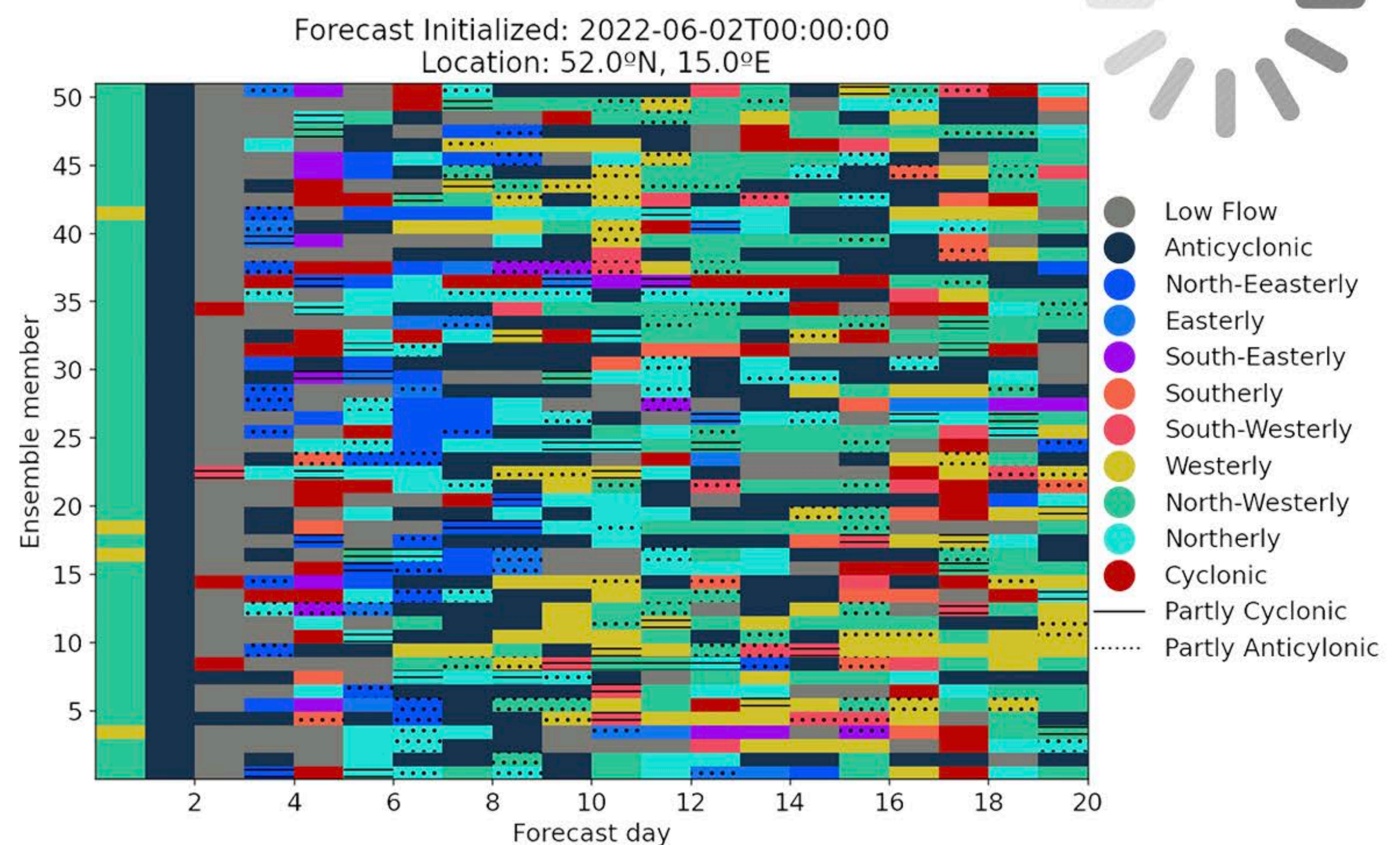
jc.plot_cts_globe(cts, mslp)
    
```

Circulation types + isobars on a globe



Coming up soon!

Plotting options for ensemble outputs.



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