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1st CMEMS INSTAC Plenary Meeting

Task 4.5 : Training

C. Troupin, J. Tintoré & SOCIB team



[REQ-GEN- 17]: training material dedicated to the current operational version of his products



[REQ-GEN- 18]: presentations and a user-friendly animated tutorial



[REQ-GEN- 19]: up-to-date material each year



[REQ-GEN- 20]: appoint an expert to give one training year
Training modules : 2-3 hours
Notification: 2 months before session



[REQ-GEN- 21]: trainer's name: < 10 days after the notification



[REQ-GEN- 22]: dedicated either to a region or to a marine/maritime issue



[REQ-GEN- 23]: report 15 days after the training session



Region: Mediterranean Sea



Next training session: early December

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Expert: J. Tintoré



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Content: multi-platform observing systems, lack of in situ data, importance of Quality Flags, metadata, ...



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Material: ipython notebooks

- reading netCDF files
- working on CORA dataset
- dealing with Quality Flags
- ...

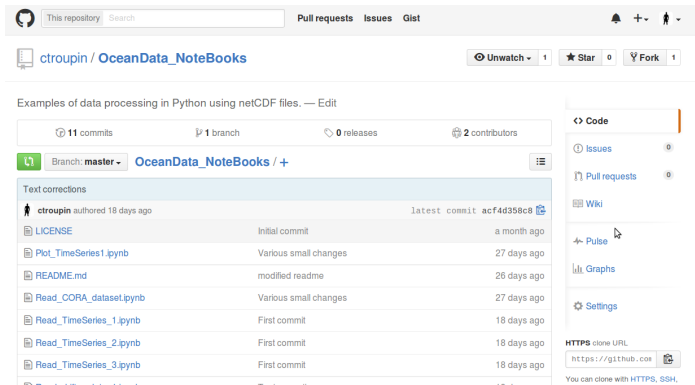
local file, OPeNDAP



ipython notebooks distributed in github



https://github.com/ctroupin/OceanData_NoteBooks



This repository Search Pull requests Issues Gist

ctroupin / OceanData_NoteBooks Unwatch 1 Star 0 Fork 1

Examples of data processing in Python using netCDF files. — Edit

11 commits 1 branch 0 releases 2 contributors

Branch: master OceanData_NoteBooks / +

Text corrections

ctroupin authored 18 days ago latest commit acf4d358c8

File	Commit	Time ago
LICENSE	Initial commit	a month ago
Plot_TimeSeries1.ipynb	Various small changes	27 days ago
README.md	modified readme	26 days ago
Read_CORA_dataset.ipynb	Various small changes	27 days ago
Read_TimeSeries_1.ipynb	First commit	18 days ago
Read_TimeSeries_2.ipynb	First commit	18 days ago
Read_TimeSeries_3.ipynb	First commit	18 days ago

Code Issues 0 Pull requests 0 Wiki Pulse Graphs Settings

HTTPS clone URL <https://github.com>

You can clone with HTTPS, SSH.

- ▶ User-friendly



- ▶ User-friendly
- ▶ Free, easy to write, easy to read



Why ipython notebooks?

- ▶ User-friendly
- ▶ Free, easy to write, easy to read
- ▶ Code and results visible online via <http://nbviewer.ipython.org>



Why github ?

- ▶ Public access, easy to download



Why github ?

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Why github ?

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- ▶ Collaborative development
- ▶ Bug tracking, feature request, wikis, . . .

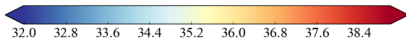
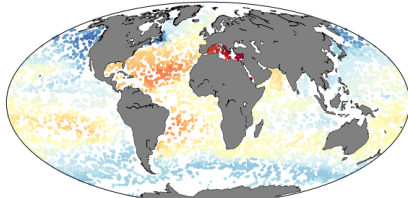


How does it look like?

Finally, the colorbar will be placed below the map.

```
In [157]: fig = plt.figure(figsize=(10,8))
m.scatter(lon p, lat p, s=10, c=salinity_atdepth masked, edgecolor='None', cmap=cmap, norm=norm)
plt.colorbar(scatter, extend='both', orientation='horizontal', pad=0.05)
m.fillcontinents(color='gray', lake_color='white')
m.drawcoastlines(linewidth=0.5)
plt.title('Salinity at ' + str(mydepth) + ' meters \n' + str(goodmeasurements) + ' measurements')
plt.show()
```

Salinity at 100.0 meters
22361 measurements



Even with this type of scatter plot, we can see interesting characteristics of the salinity field.

4



What's next?

- 1 Training course in early December



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- 2 Other regional leaders to be ready for next training sessions



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- 1 Training course in early December
- 2 Other regional leaders to be ready for next training sessions
- 3 Tailoring the training material

