

1st INIOAS Training Course on Ocean Remote Sensing, 2023



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<https://www.inio.ac.ir/ORSA>

Ocean Altimetry and Sea Level

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Interactive Lecture

Pass Locator

- Download the Google Earth CFOSAT file
(https://www.aviso.altimetry.fr/fileadmin/documents/data/tools/cfosat_trace_v2.1.kml)
- Download the txt file giving the UTC starting dates of each cycle
(https://www.aviso.altimetry.fr/fileadmin/documents/data/tools/cfosat_cycles_t0_v4.txt)
- Open GoogleEarth Pro
- Add the CFOSAT file
- Find the Pass #1
- Find the pass time for a favorite location and time

- Open Topex/Poseidon, Jason-1/2/3 KMZ on GoogleEarth and review track number of you favorite location
- Open Saral, ERS-1/2, Envisat KMZ on GoogleEarth and review track number of you favorite location
- Other KMZ files available at <https://www.aviso.altimetry.fr/en/data/tools/pass-locator.html>

LIVE ACCESS SERVER (LAS)

- Open LAS (<https://las.aviso.altimetry.fr/las/UI.vm>)
- Select Sea Level Anomaly
- Select Date
- Update Map
- Define a Sub Area (Left-Side)
- Update Map
- Select Line Plot/Time (define Time Range)
- Update, Draw Time-Series
- Select 2 Plots and compare two different dates
- Select Hovmoller Plots and Compute the longitudinal variations across dates

ALTIMETRY DATA ANALYSIS USING BRAT

- Install BRAT (<https://www.altimetry.info/>)
- Run BRAT
- Create a new workspace
- Add a new Dataset called Jason_Alone_Track
- Add another new Dataset called Jason_Gridded
- Add the file to the first dataset
 - *JAI_GPR_2PcP520_157_20121217_184634_20121217_194237.nc*
- Add the file to the first dataset
 - *dt_upd_global_merged_msla_h_20060705_20060705_20070110.nc*
- Open Operations Tab
- Create New Operation

ALTIMETRY DATA ANALYSIS USING BRAT

- Select Jason_Along_Track dataset
- Select Plot
- Drag Lon in X, and mean_sea_surface in Data
- Execute operation
- Select Map
- Drag Lon in Y
- Repeat Operation with MAP
- Repeat for Jason_Gridded>Create New Operation

Thank You