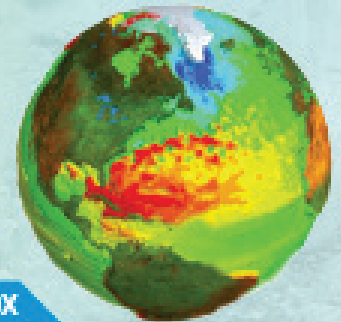


Coastal Altimetry Workshop 2017

The word "brat" is written in a large, bold, blue, lowercase sans-serif font. It is positioned in the center-right of the slide, overlapping a colorful satellite altimetry map of a coastal region. The map uses a color scale from blue (low elevation) to red and yellow (higher elevation).

BROADVIEW RADAR ALTIMETRY TOOLBOX

Ricardo Capote
Florence, Italy, 24th February 2017

BRAT Software



Broadview
Radar
Altimetry
Toolbox

- BRAT is a desktop tool for reading and displaying data from several altimetry missions
- Data supported includes:
 - Cryosat L1B and L2
 - Envisat GDR and SDR
 - ERS OPR and WAP
 - Jason-1 L2
 - GFO GDR
 - Topex_Poseidon GDR and SDR
 - Jason-2 SGDR and GDR
 - Sentinel-3 L2, L1A and L1BS
 - Envisat and ERS reprocessed products
 - Geosat GDR
 - ESA River and Lake Products
 - Also any file in netCDF format (some functionalities not available)

BRAT Capabilities



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- BRAT can be used to:
 - Check the structure (variables) in the files
 - Visualize location of the data and quickly define user filters for the data (only for recognized formats)
 - Plot 1D arrays with scatter plots
 - Convert 1D data into gridded data and plot them in maps, spectrograms or 3D plots
 - Combine variables into data expressions and plot the results (in-built equations and functions available)
 - Write your own Python script to process the data (e.g. Retracking algorithm)
 - Export the data into netCDF, ASCII or KML files
 - Easy access to data from RADS (<http://rads.tudelft.nl/rads/rads.shtml>) and display of RADS variables (new feature in version 4.1.0)

Why use BRAT?



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- The tool allows you to quickly read and display data from a variety of altimetry data sources
- The tool has an easy to use and intuitive interface, allowing to manipulate data in a visual manner
- The tool allows you to export data into your preferred format (netCDF, ASCII, and KML)
- The tool can be installed in several different operating systems (Windows, MAC OS X and Linux)
- The tool suits both novice (simple steps for displaying data) and expert users
- The tool offers already built-in formulas for the most common parameters (SSH, SLA, etc...)

Where to get BRAT?



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- BRAT is available at <http://www.altimetry.info/toolbox/> (compiled installers for different OS and also source code)
- To download the compiled installers it is requested email registration (details are only used to send news when a new release is ready and for counting number of users)
- The source code of the toolbox is also available at <https://github.com/BRAT-DEV/main> (BRAT is LGPL and you can contribute)
- Current version is 4.0.0, but new release 4.1.0 is coming soon (probably in March)

Radar Altimetry Tutorial



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Toolbox

- Online tutorial with all concepts of altimetry (PDF version is also available to download)
<http://www.altimetry.info/radar-altimetry-tutorial/>
- Examples of usages of altimetry data
<http://www.altimetry.info/thematic-use-cases/>
- Training material
<http://www.altimetry.info/radar-altimetry-tutorial/training-material/>
- FAQ about altimetry and the tool
(<http://www.altimetry.info/helpdesk/faq/>)
- Helpdesk
(<http://www.altimetry.info/helpdesk/>)
- Forum
(<http://www.altimetry.info/?forum=altimetry-forum-2>)

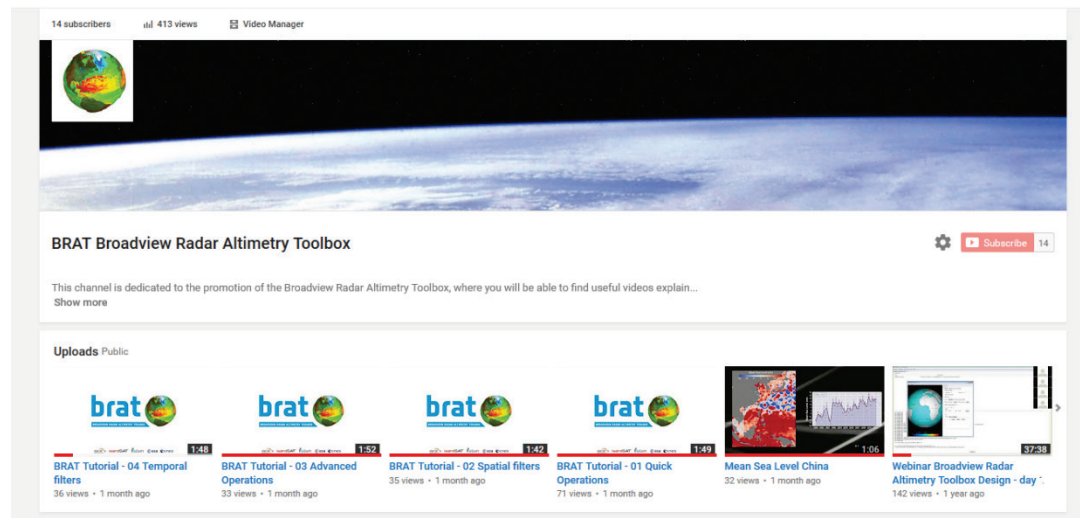


BRAT Video Tutorials

- Video tutorials on how to use BRAT available at BRAT Youtube channel (<https://www.youtube.com/channel/UCRsFnfH3UegSZYF70H6-IOQ>)
 - Videos from Youtube channel available from the toolbox (new feature in version 4.1.0)
- ➔ Please subscribe to Youtube channel to get updates for new videos!



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Other useful tools



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- **VtCryoSat**
 - Online tool in order to easily browse and download CryoSat products (<http://visioterra.net/VtCryoSat/>)
- **CryoSat User Tool (CUT)**
 - Windows stand-alone application for displaying and downloading CryoSat products from remote FTP servers or from local directories (<https://earth.esa.int/web/guest/-/cryosat-user-tool-7386>)
- **Goce User Tool (GUT)**
 - Compilation of tools for the utilisation and analysis of GOCE Level 2 products. GUT supports applications in Geodesy, Oceanography and Solid Earth Physics. (<https://earth.esa.int/web/guest/software-tools/gut/about-gut/overview>)
- **SARvatore**
 - CryoSat service for SAR Processing on Demand available on G-POD (<https://gpod.eo.esa.int/>)

BRAT DEMO



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