

ARIA STANDARD PRODUCTS, ARIA-TOOLS, & TIME-SERIES INSAR JET PROPULSION LABORATORY - PASADENA, CA AUG 20, 2019

UNAVCO, a non-profit membership-governed consortium, facilitates geoscience research and education using geodesy.

INSTRUCTORS:

David Bekaert, JPL Heresh Fattahi, JPL Simran Sangha, JPL/UCLA Emre Havazli, JPL

SEE PAGE 2 FOR A PRE-TRAINING HOMEWORK ASSIGNMENT

TUESDAY, AUG 20* - 8:00AM - 5:00PM (PACIFIC TIME) - JPL ROOM 180-101

8:00 – 8:30	Welcome with complementary coffee, bagels, and pastries
8:30 – 9:00	Presentation: Overview of the ARIA standard InSAR displacement productBekaert/All
9:00 – 9:30	Demo: Product data access through online ARIA and ASF GRFN archiveBekaert/All
9:30 – 9:45	Notebook: Command line download of productsBekaert/All
9:45 – 10:00	Break
10:00 – 10:30	Notebook: GDAL command line and python manipulation of productsBekaert/All
10:30 – 11:30	Notebook: Cropping, stitching, and data extraction from productsBekaert/All
11:30 – 11:45	Notebook: Temporal and spatial statistical considerations for time-series analysisBekaert/All
11:45 – 12:00	Notebook: Time-series preparation using standard products
12:00 - 1:00	Complementary lunch
1:10	Group picture
1:15 - 1:45	Presentation: Introduction to the Miami InSAR time-series Software in Python (MintPy) Fattahi/All
1:45 - 3:00	Notebook: Time Series InSAR Analysis with MintPy over San Francisco BayFattahi/All
3:00 - 3:15	Break
3:15 - 4:00	Notebook: Time Series Analysis with MintPy – Error analysis and noise reduction Fattahi/All
4:00 - 4:30	Notebook: Visualization and exporting results of MintPy
4:30 - 5:00	Discussion and Conclusion

^{*}Full day participation is strongly encouraged

THIS MEETING IS HOSTED AT JPL WITH FOREIGN NATIONAL PARTICIPATION.

CONTENT AND DISCUSSIONS ARE LIMITED TO SCIENCE ONLY.



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WHAT PARTICIPANTS SHOULD DO PRIOR TO THE COURSE:

- 1. If you do not have a NASA Earth data log-on yet, create one here: https://urs.earthdata.nasa.gov/home
- 2. User need to add the following applications to their NASA Earth data profile: https://urs.earthdata.nasa.gov/profile Click under "Applications", "Authorized Apps", and use "Approve more applications":
 - ASF Datapool products
 - o ARIA Product Search
 - GRFN Door (PROD)
- 3. Once 1-2 is completed successful you can download the following file: https://grfn.asf.alaska.edu/door/download/S1-GUNW-D-R-087-tops-20190723 20190711-161546-20645N 18638N-PP-93e8-v2 0 2.nc. If requested provide your Earth data username and password.
- 4. HOMEWORK: Send the file size of the download product back to David.Bekaert[AT]jpl.nasa.gov

WHAT PARTICIPANTS SHOULD BRING TO THE COURSE:

- Laptop with ability to connect to the wireless network.
- Full-day participation is strongly recommended as lecture modules build on each other.

VISITORS TO JPL

- Please arrive by 8.00am at the JPL visitor center.
- Identification documents are required (passport recommended).
- If arriving by car, the JPL security guards will direct you to the visitor parking.
- Address:

Jet propulsion Laboratory 4800 Oak Grove Drive La Cañada Flintridge, CA 91011

JPL PARTICIPANTS:

- Foreign national participation. Content and discussions are limited to science only.
- No WAMs are provided as part of this training

MEETING WEBEX INFORMATION:

Meeting number: 901 813 253 (access code)

Phone +1 844-575-9329 (USA Toll-free)
+1-510-210-8882 (USA Toll)

URL https://jpl.webex.com/jpl/j.php?MTID=m2d18489fa94abd2af02240f6b9a7e3c8

FOR BACKGROUND MATERIAL:

- ARIA standard product: https://aria.jpl.nasa.gov/node/97
- ARIA product pages: http://aria-products.jpl.nasa.gov/

SOFTWARE PACKAGES:

We will use the packages as outlined below. Note it is not a pre-requisite to have these installed.

Although we do not have a dedicated slot on installation, we can assist participants during breaks with installation questions.

- ARIA tools for manipulation: https://github.com/aria-tools/ARIA-tools
- ARIA tools documentation: https://github.com/aria-tools/ARIA-tools-docs
- MintPy time-series processing: https://github.com/insarlab/MintPy