

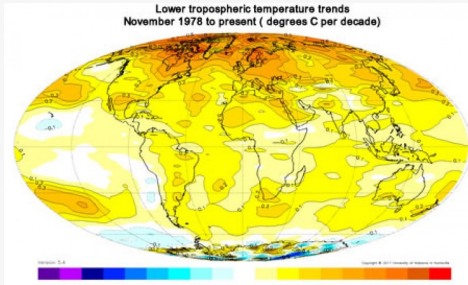
Group Projects for 2025 NASA Summer School on Satellite Observations and Climate Models

Lead: Seungwon Lee

Engineer: Alex Goodman

Topic Scientists: Ian Fenty, Ou Wang, Kay Suselj, Josh Willis, Severine Fournier, Gary Doran, and Antonio Ferraz

August 20-29, 2025



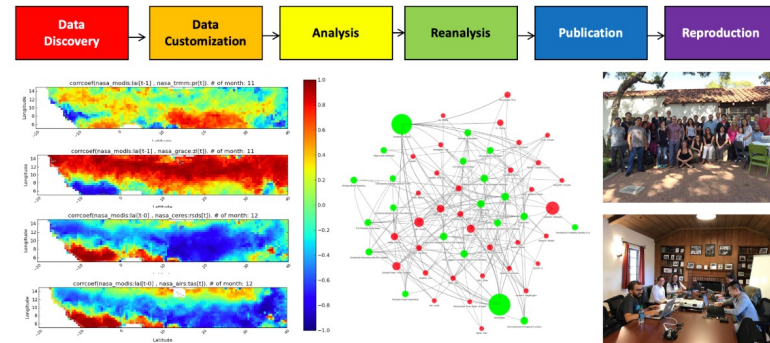
Group Projects

- Hands-on experience with Earth Science topics.
- Four group research topics have been designed.
 - Global Warming
 - Marine Carbon Dioxide Removal
 - Sea Level Rise
 - Tree Mortality
- Project information can be found in the project webpage: <https://jpl-cmda.org/ccs.html>
- Datasets and analysis tools are provided in the project server: <https://hub.jpl-cmda.org>.

Project Webpage

- <https://jpl-cmda.org/ccs.html>
- Group Project topic presentations are available.
- Group Project topic scientist contact information is available.

2025 NASA Summer School Group Projects



[NASA Summer School on Satellite Observations and Climate Models](#) brings together the next generation of climate scientists to engage with premier climate scientists. The summer school focuses on the topic of "Using Satellite Observations to Advance Climate Models." Students will explore how satellite observations can be used to evaluate and improve climate models by doing a group project with hands-on exercises.

Students will be engaged in group projects for hands-on exercise of using satellite observation data and climate model outputs for climate science research. In the group projects, the students will explore satellite observation and climate model data to study one of the following six topics:

- [Where is global warming?](#)
- [Marine carbon dioxide removal](#)
- [Sea level rise from mass gain and thermal expansion](#)
- [Ecological forecasting of tree mortality](#)

Project Server (CMDA)

- All relevant datasets and analysis tools are provided in the CMDA server which runs JupyterHub.
- <https://hub.jpl-cmda.org>

Project Schedule

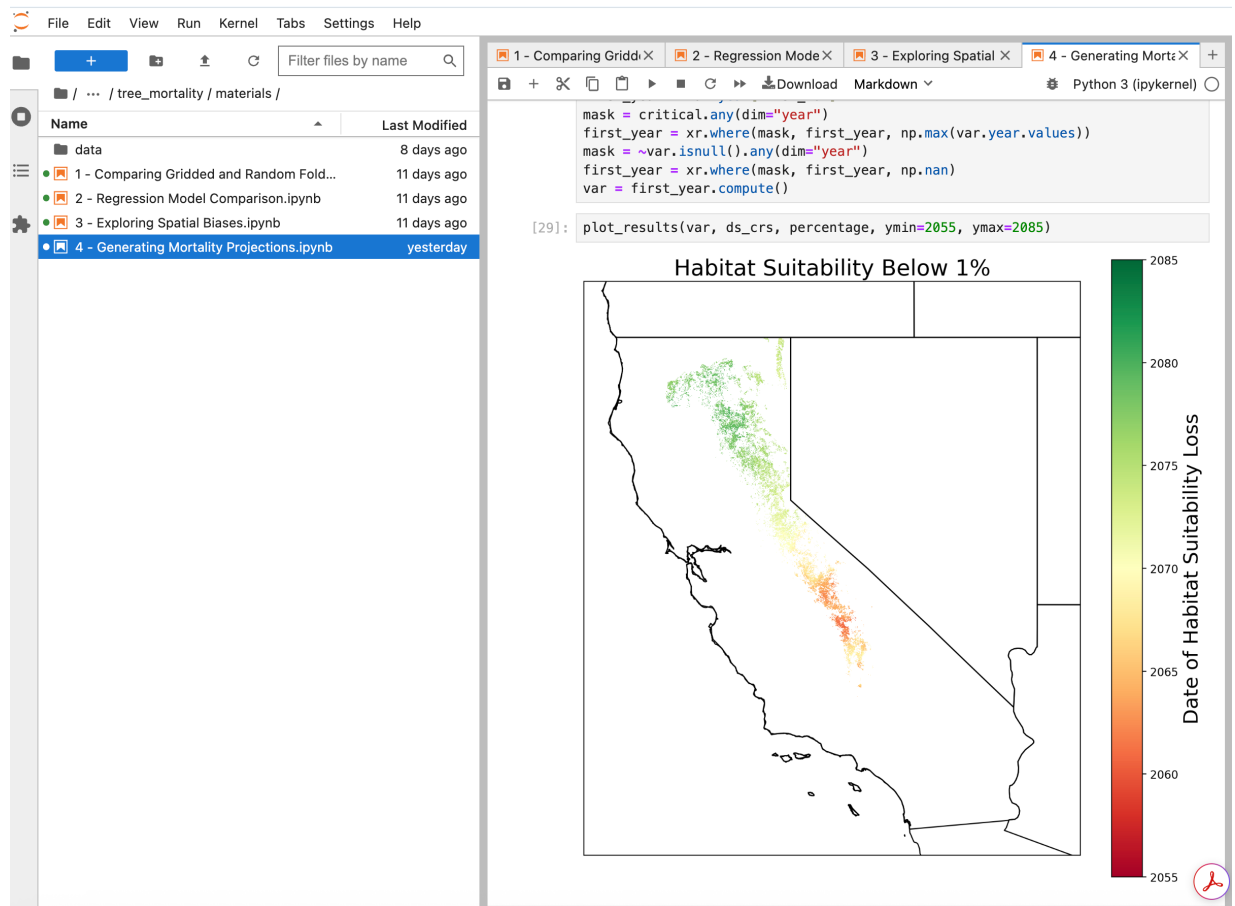
- **August 20 Wednesday (Day 1)** 9:45AM-12PM
Group Project Introduction and Topic Selection Session
- **August 21 Thursday (Day 2)** 10:15AM-11:15AM
Group Project Server Office Hour
- **August 25 Monday (Day 3)** 4PM-5:30PM
Working Session
- **August 26 Tuesday (Day 4)** 2PM-3PM
Working Session
- **August 28 Tuesday (Day 4)** 3:30PM-5:30PM
Working Session
- **August 28 Thursday (Day 6)** 3:30PM-5:30PM
Working Session
- **August 29 Friday (Day 7)** 10:30AM-12PM
Student Presentations

Contact Scientists:

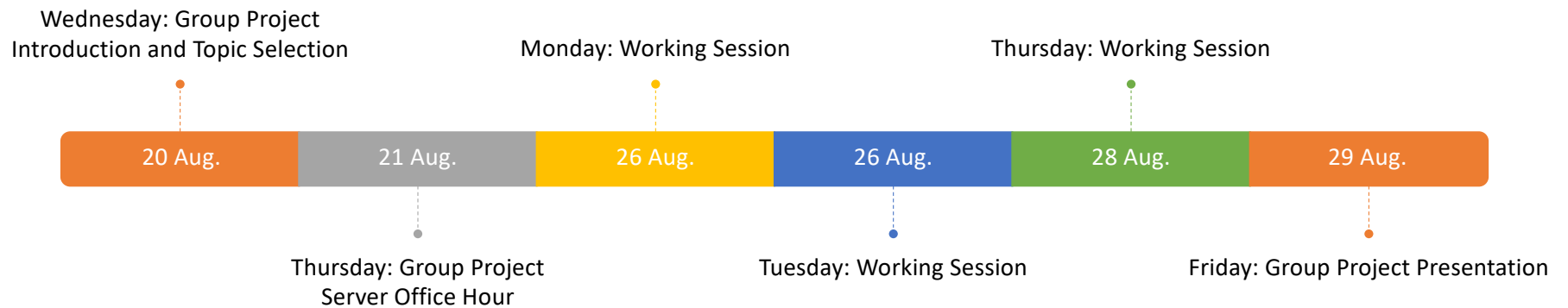
- Seungwon Lee (seungwon.lee@jpl.nasa.gov)
- Alex Goodman (alexander.goodman@jpl.nasa.gov)

Project Server

- Server: <https://hub.jpl-cmda.org>
- Jupyter Hub running on AWS
 - Datasets
 - Jupyter Notebooks
 - Python Packages
- Server Login information
 - Username: your email address
 - Password: nasa-ccs
- Server Office Hour
 - August 21st Thursday 10:15am to 11:15 am
 - Alex Goodman:
Alexander.Goodman@jpl.nasa.gov



Group Project Schedule



Project Development Team



Please feel free to contact the team
if you have any questions.



Seungwon Lee:
seungwon.lee@jpl.nasa.gov

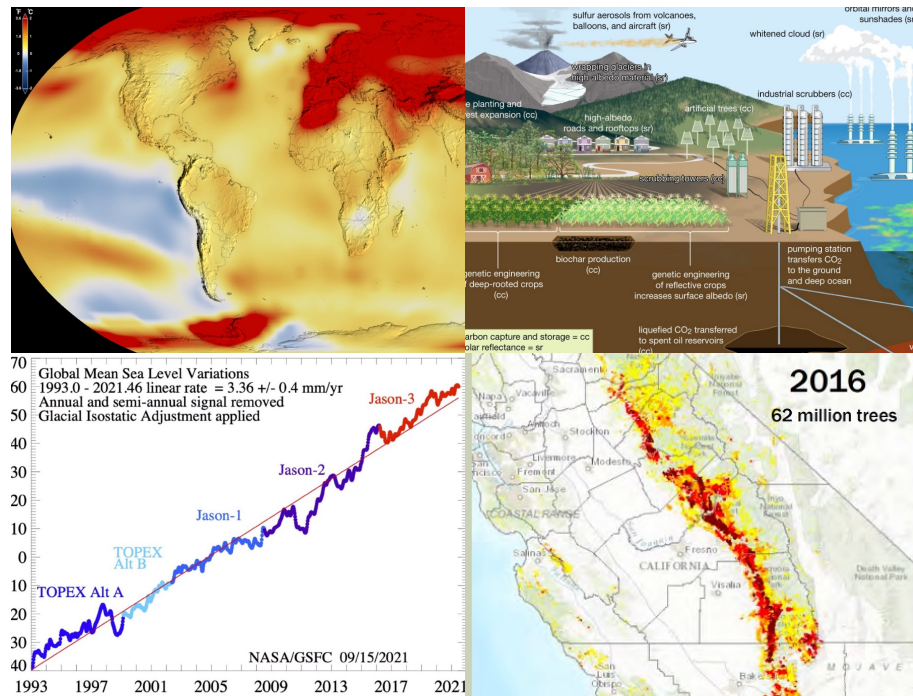


Alex Goodman:
alexander.goodman@jpl.nasa.gov

Group Project

Topics and Scientists

- Where is Global Warming?
 - Ian Fenty: ian.fenty@jpl.nasa.gov
 - Ou Wang: ou.wang@jpl.nasa.gov
- Marine Carbon Dioxide Removal
 - Kay Suselj: kay.suselj@jpl.nasa.gov
- Sea Level Rise
 - Josh Willis: joshua.k.willis@jpl.nasa.gov
 - Severine Fournier: severine.fournier@jpl.nasa.gov
- Ecological Forecasting of Tree Mortality
 - Gary Doran: gary.b.doran.jr@jpl.nasa.gov
 - Antonio Ferraz: antonio.a.ferraz@jpl.nasa.gov



Group Project Topic Selection



<https://forms.gle/R2h25uFVHSdGXwYt8>

What is your name? *

Your answer _____

Please choose the group project topic in your preference order. *

	First Choice	Second Choice	Third Choice	Fourth Choice
Global Warming	☐	☐	☐	☐
Marine CO2 Removal	☐	☐	☐	☐
Sea Level Rise	☐	☐	☐	☐
Tree Mortality	☐	☐	☐	☐

Microsoft Teams Meeting Links



Microsoft Teams

Topic	MS Teams Meeting Link
Global Warming	https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZGM5M2JkMzltNzczMy00MzEyLThjYWltZGM3OGM0YjdIMTAz%40thread.v2/0?context=%7b%22Tid%22%3a%22545921e0-10ef-4398-8713-9832ac563dad%22%2c%22Oid%22%3a%2292fb7bce-1aed-4383-9fcc-163de5cd9abc%22%7d
Marine CO2 Removal	https://teams.microsoft.com/l/meetup-join/19%3ameeting_ODU4NDc1MDMtODFiMS00Mzg3LTkxMzEtYWYxZWwNGQxNGI3%40thread.v2/0?context=%7b%22Tid%22%3a%22545921e0-10ef-4398-8713-9832ac563dad%22%2c%22Oid%22%3a%2270db5194-2f2a-4b3a-b20c-198be9aa7457%22%7d
Sea Level Rise	https://teams.microsoft.com/l/meetup-join/19%3ameeting_NTIjODJiMzltOGE4Ni00MjdILWJhZTAZGRjOTJlZTViOWU0%40thread.v2/0?context=%7b%22Tid%22%3a%22545921e0-10ef-4398-8713-9832ac563dad%22%2c%22Oid%22%3a%2242194d16-57d2-4e0b-9bb0-03796efad403%22%7d
Tree Mortality	https://teams.microsoft.com/l/meetup-join/19%3ameeting_NGlyMmQyYmItYzNkMS00OWJkLWFKYTltYjIjMmYzZjQxZmZh%40thread.v2/0?context=%7b%22Tid%22%3a%22545921e0-10ef-4398-8713-9832ac563dad%22%2c%22Oid%22%3a%225a7a478e-0b3b-4d2f-ab37-27d03bc4f760%22%7d

Group Project Topic Assignment

[illegible]