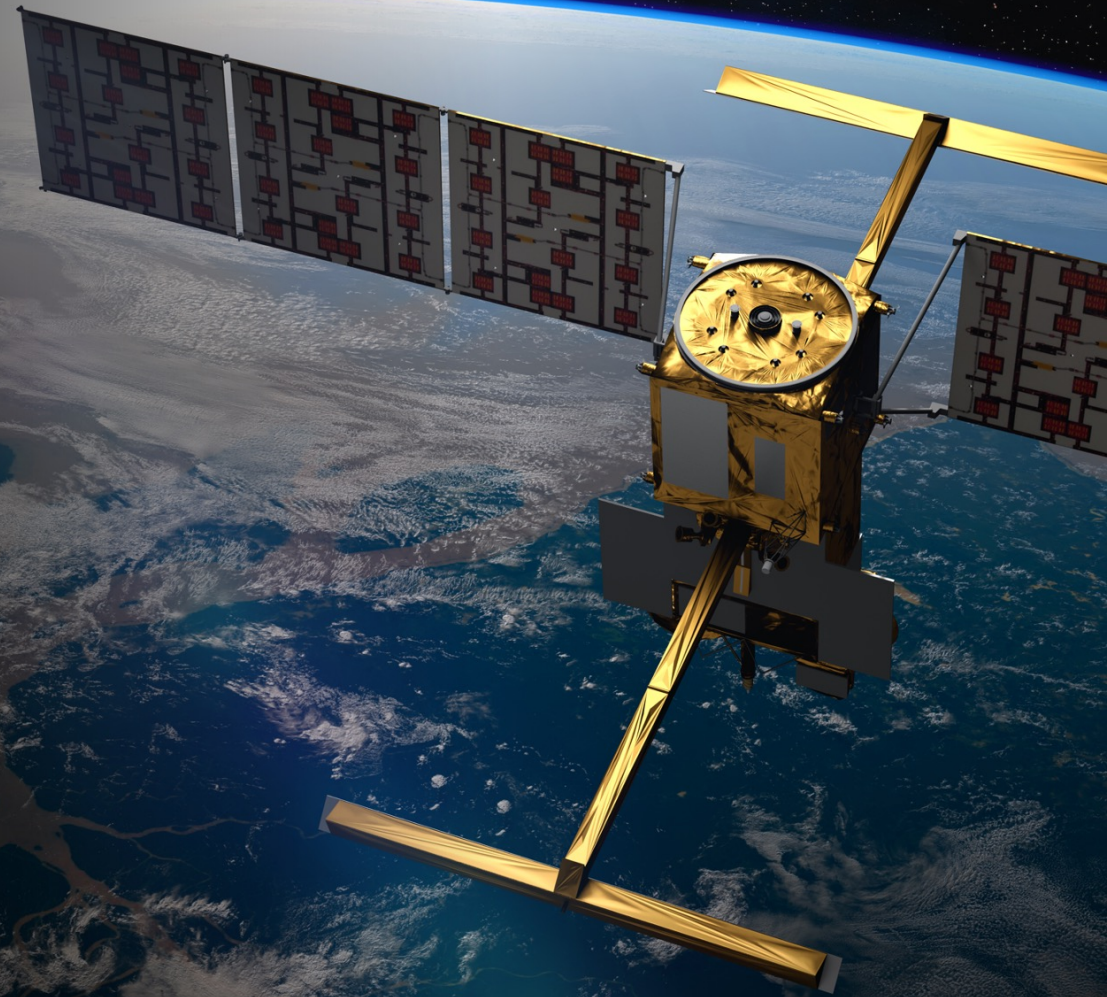


ECCO & Ocean Physics at NASA

Nadya Vinogradova Shiffer

NASA HQ

January 25-26, 2023 · Pasadena, CA



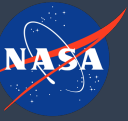


Congrats ECCO! 🏆

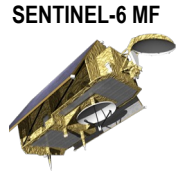
Agency award: NASA's first cloud, multi-platform data integration & modeling framework for climate research

Featured in 2021 Nobel Prize for Physics, IPCC AR6, COP26, COP27, US commitments 2022, 2023 NASA/NOAA heat update, 200+ publications in 2021-2022, etc.

WELL DONE, TEAM! PROUD OF YOU ALL!



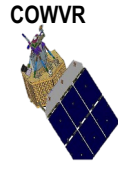
JASON-3



SENTINEL-6 MF



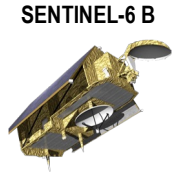
SMAP



COWVR



SWOT



SENTINEL-6 B



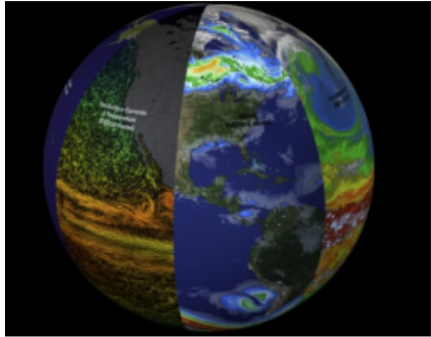
CRISTAL, CIMR



S-MODE



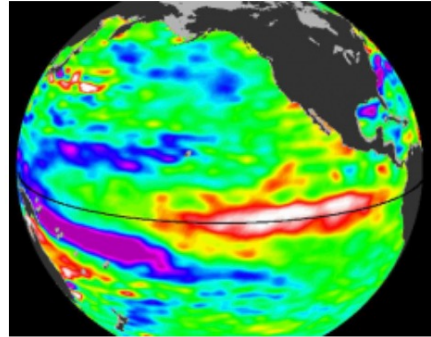
SASSIE



Physical Oceanography (PO)



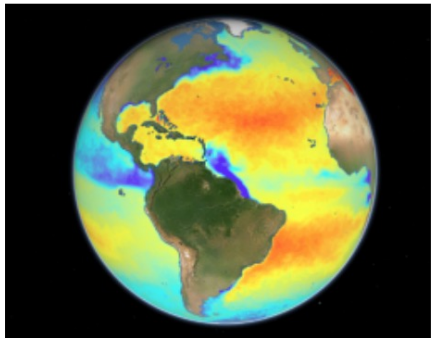
Sea Level Change (N-SLCT)



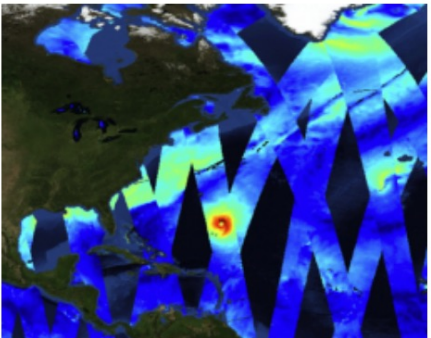
Ocean Surface Topography (OSTST)



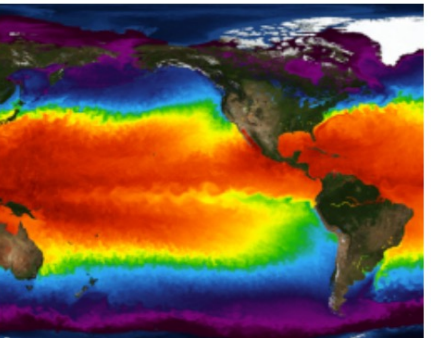
Surface Water and Ocean Topography (SWOT)



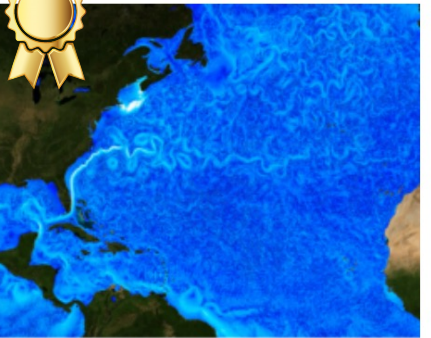
Ocean Surface Salinity (OSST)



Ocean Vector Winds (OVWST)



Sea Surface Temperature (SST)



Estimating Circulation and Climate of the Ocean (ECCO)

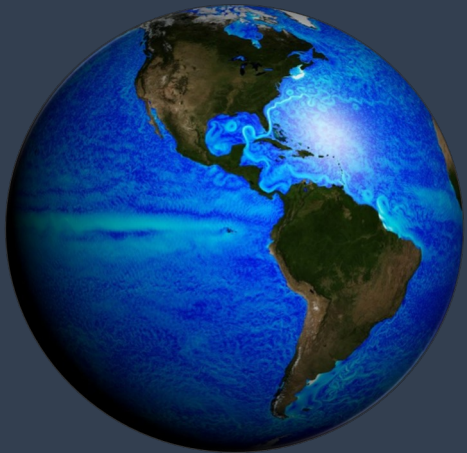
NASA Ocean Physics

Science Teams & Missions

<https://go.nasa.gov/phocean>
nadya@nasa.gov

ECCO

Understand the physics of the Earth's ocean in a new climate



1. Production

Scheduled delivery. More discipline on milestones (latency, resolution, coupling). Increased robustness of central estimate. New data. SWOT? Impact and success metrics?

3. NASA missions

Involvement in future mission planning. Become instrumental in OSSEs for NASA cal/val campaigns

2. R&D

Interpret ongoing and get ready to resolve future changes in ocean and Earth climate system. New science applications beyond PO? Modeling and adjoint capabilities for DT and/or prediction?

4. Engagement

Continue providing open-source tools and training. Userbase expansion. Annual state of the ocean update and analysis? Serve as the science and informational foundation for Federal climate strategies.