



2023 A YEAR OF OPEN SCIENCE





TOPS Code of Conduct

We strive to create a welcoming and inclusive culture that empowers people to provide outstanding open science. That requires an open exchange of ideas balanced by thoughtful guidelines.

It would be impossible to list everything staff can do to create a more welcoming space, and we know this team will find ways to include their colleagues that we haven't even thought of. But when in doubt, we encourage you to look to these principles for guidance:

- Practice empathy and humility.
- Participate in an authentic and active way. In doing so, you contribute to the health and longevity of this community.
- Exercise consideration and respect in your speech and actions.
- Assume that everyone we work with is doing their best work for open science.
- Listen carefully and actively.
- Ask questions, and seek to understand your partners' context.
- Encourage other people to listen as much as they speak.
- Attempt collaboration before conflict.
- Treat other people's identities and cultures with respect. Make an effort to say people's names correctly and refer to them by their stated pronouns.
- Be mindful of your surroundings and of your fellow participants. Alert community leaders if you notice a dangerous situation, someone in distress, or violations of this Code of Conduct, even if they seem inconsequential.





TOPS Code of Conduct

The primary goal of TOPS is to be inclusive to the largest number of contributors, with the most varied and diverse backgrounds possible.

TOPS expects everyone to comply with our code of conduct, communicating openly with respect for others and critiquing ideas rather than individuals.

Anyone not abiding by the TOPS Code of Conduct will be asked to leave the forum. If you are the subject of unacceptable behavior or have witnessed any such behavior, please immediately notify Chelle Gentemann via chat or chelle.gentemann@nasa.gov.

For more information, review the code of conduct found on the TOPS GitHub.



Submit Feedback or Suggestions

Your inputs are essential to the success of our mission. Please feel free to submit questions, feedback, or suggestions via the feedback tool.

You can use the QR code to access the feedback tool



NASA TOPS collaborates on Open Science Podcast

Season 4, Down to Earth collaborated with NASA and the IEEE Geoscience and Remote Sensing Society to dig deep into the fascinating frontier of Open Science. Trailer just dropped - check it out at <https://www.grss-ieee.org/down-to-earth-podcast/> .



NEW PODCAST EPISODE

Down to Earth: Season 4 "Open Science" Trailer

Down To Earth: A podcast for Geoscientists by Geoscientist





Chelle Gentemann
NASA TOPS



Sudhir Shrestha
**NOAA NWS Office of
Water Prediction**

A YEAR OF OPEN SCIENCE





2023



NASA is supporting scientists to integrate open science principles into the entire research workflow

Infrastructure

Policy

NASA's
Open-Source
Science
Initiative

Funding

Community



NASA's Transform to Open Science (TOPS)

a \$40 million 5-year mission to accelerate adoption of open science

TOPS' Strategic Goals:

- Support 20K researchers to earn NASA's open science certification
- Double the participation of historically excluded groups across NASA Science
- Enable five major scientific discoveries through open science principles



Engagement



Capacity Sharing



Incentives



Coordination



NASA's 2023 Year of Open Science



...is the spark

TOPS Priorities:

CURRICULUM - Introduction to open science

- 1000 scientists earn NASA TOPS open science certificates

EVENTS - Engage historically underrepresented groups

- Partner w/ Minority Serving Institutions (MSIs)
 - Marquee events, TOPS Annual Hackathon, Annual TOPS Internship program (3-4 people/year; All-in)
- Establishing Strategic Partnerships with external organizations focused on STEM engagement

OPPORTUNITIES - Develop incentives

- Pilot including open science activities in evaluations of 5+ NASA ROSES23 elements and at 5+ universities (Tenure and Promotion)
- Partner with societies on open science awards



The NASA Open Science Certificate identifies researchers who use key open science skills



Open Science 101: A community-developed introduction to open science with inclusivity, accessibility, and diversity at the forefront.











































- Able to use digital tools to perform open science (e.g., ORCID, Zenodo, Github accounts)
- Familiar with data management and software management plan best practices and resources
- Grow connections across a community of open science practitioners

Join us in
adopting
open science





Many thanks to the global community of open science experts who shared their knowledge and experiences with us!

 Yo Yehudi	 Natacha Batalha	 Shilaa Alzahawi	 Sara	 Cameron	 James Powell	 Daniela Saderi
 smhall97	 Jannatul Ferdush	 Flavio Azevedo	 Chris Erdmann	 Yuhan (Douglas) Rao	 Batool Almarzouq	 Esther Plomp
 TomoCoral	 Melissa Black	 Malvika Sharan	 Sarangjeet Kaur	 Michel Lacerta	 Ismael-KG	 andreamedinasmith
 aasman12	 Elio Campitelli	 Stephen Klusza	 Mariana Meireles	 Pauline Karega	 Anne Fouilloux	 Reino Camacho Toro
 Sierra V. Brown	 Shamsuddeen Hassan Muhammad	 Johanna Bayer	 Hugh Shanahan	 MiguelSilan	 Eli Papadopoulos	 dumidj
 Ana Vaz	 Tyson L. Sweetnam	 Babatunde Valentine Onabajo	 Taher Chegini	 ee2110	 rebeccaringuette	 Mayya

This project follows the all-contributors specification. Contributions of any kind welcome!



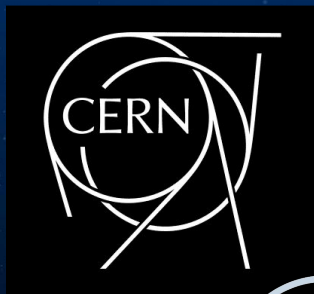
NASA Open Science

Events

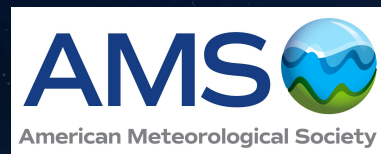


TOPS is prioritizing outreach in 2023!

You will find TOPS at the conferences for...



AMERICAN
ASTRONOMICAL
SOCIETY



...and more!



TOPS is raising visibility of open science!



In person workshops to teach basic open science skills



Sessions to showcase open science research



Booth to sign up for virtual OpenCore workshops

Reach out to help or stop by the booth!



NASA Open Science

Opportunities



OPEN CALLS

F.2	Topical Workshops, Symposia, and Conferences	Events, Hackathons, un-conferences, and challenges that build open science skills, particularly events focused on Science Mission Directorate data, software, or open science practices Proposals for ROSES-22 will be accepted until May 12, 2023
F.7	Support for Open Source Tools, Frameworks, and Libraries	Improvements and sustainment of high-value, open source tools, frameworks, and libraries that have made significant impacts to the SMD science community Proposals for ROSES-22 will be accepted until February 14, 2023
F.8	Supplemental Open Source Software Awards	Conversion of legacy software into modern code with open license Proposals for ROSES-22 will be accepted until March 29, 2023
F.15	High Priority Open-Source Science	Innovative open-source tools, software, frameworks, data formats, and libraries that will have a significant impact on the SMD science community Proposals may be submitted at any time until March 29, 2023



COMING SOON

F.14 Transform to Open Science Training

Tutorials showcasing open science in action and NASA cloud data, summer schools, virtual cohorts. Budget of \$4.5M per year. Once every three years

Coming again soon

F.16 Supplement for Software Platforms

Supplemental support of existing awards for use of scientific analysis platforms

Deferred until ROSES 2023

Check out TOPS' proposal resources at
<https://nasa.github.io/Transform-to-Open-Science>



There are actions you can take today to get more involved in open science!

And help others get involved, too!

Learn more about TOPS
Open Science Activities!

Join an open science
community!



Develop an Open
Science Action Plan



Explore the Open Science
Toolkit from the National
Academies



NASA Open Science

Multi-Agency Initiatives



The White House announces

2023: A Year of Open Science

A multi-agency initiative across the US Federal Government to spark change and inspire open science engagement through events and activities that will advance adoption of open science.

- ◆ **NASA**
- ◆ **National Oceanic and Atmospheric Administration**
- ◆ **National Science Foundation**
- ◆ **Department of Energy**
- ◆ **General Services Administration**
- ◆ **National Endowment for the Humanities**
- ◆ **National Institutes of Health**
- ◆ **National Institute of Standards and Technology**
- ◆ **US Department of Agriculture**
- ◆ **US Geological Survey**





A Common Definition

Open science is the principle and practice of making research products and processes available to all, while respecting diverse cultures, maintaining security and privacy, and fostering collaborations, reproducibility and equity.



YEAR OF OPEN SCIENCE

To Change Everything, We Need Everyone!



Goals:

1. Develop a strategic plan for open science
2. Improve the transparency, integrity, and equity of reviews
3. Account for open science activities in evaluations
4. Engage underrepresented communities in the advancement of open science





Goal 1

Develop path towards a strategic plan for open science



2023 Year of Open Science





Goal 2

Improve the transparency and equity of reviews



2023 Year of Open Science





Goal 3

Account for open science activities
in evaluations and incentives



2023 Year of Open Science





Goal 4

Engage underrepresented communities in the advancement of open science



2023 Year of Open Science



Q&A

Sign up here to get Open
Science certified!

