



ENVIRONMENTAL
SCIENCE
DIVISION

OPEN SCIENCE FOR ADVANCING KNOWLEDGE TRANSFER ACROSS CESD

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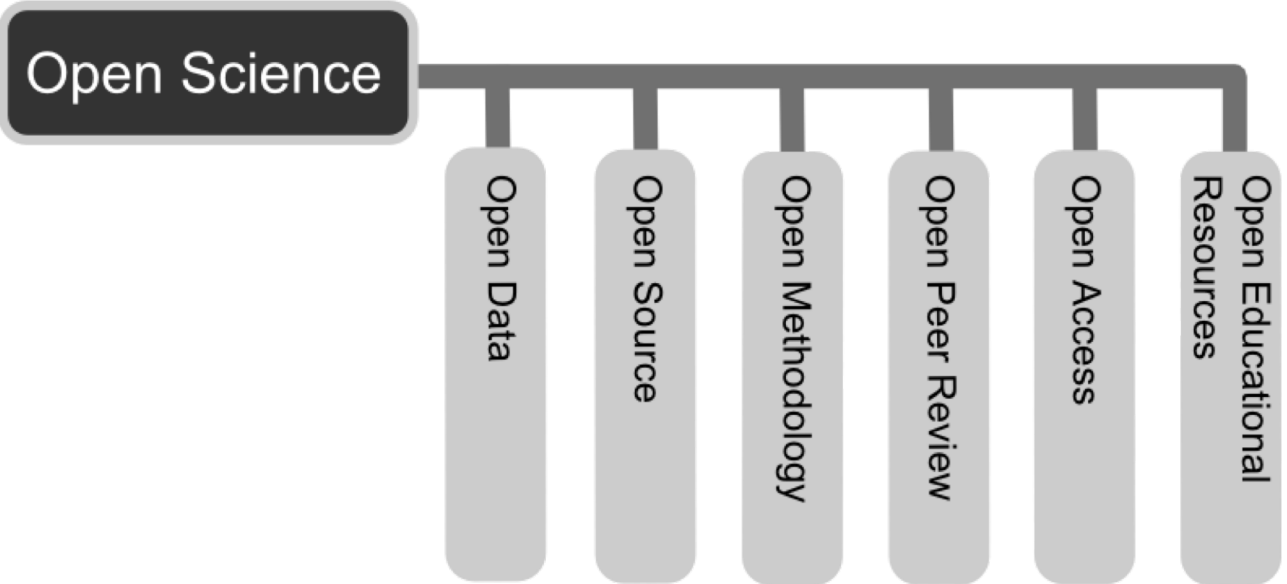
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MOST OF US CODE.



Scott Collis
@Cyclogenesis_au

Hey #AMS2018 attendees and those who work in the atmospheric sciences (@ametsoc @theAGU) I have a question for you. Do you consider writing (IDL|Matlab|python|other) code a key part of your job? ie is the ability to write code an enabling factor in getting your work done?

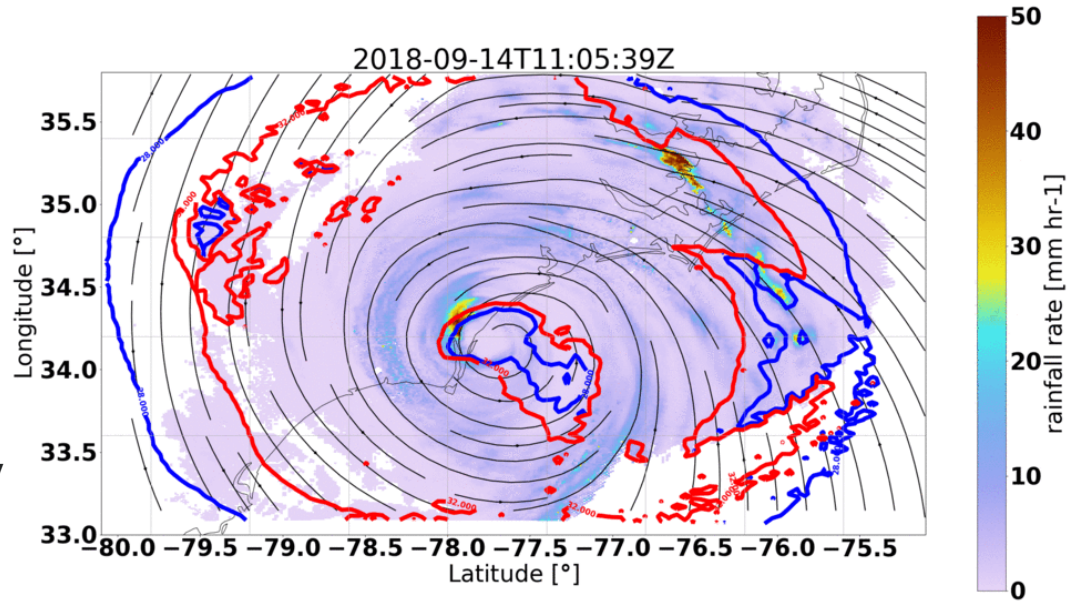
19% No, rarely write code

81% Yes, coding is essential

135 votes • Final results

OUR CESD FUNDED SOFTWARE

- Py-ART. ARM funded, 81,000 downloads from Conda-Forge, 77 citations to metapaper (in 2 years), Defense, NWS, Private Industry (Cray, IBM, Climate Corp..) blah blah Used to find meteors.
- TINT, TINT Is Not TITAN. CMDV funded cell tracking.
- PyDDA, CMDV funded, super easy to use wind retrievals including background constraints. Being used by NASA being used as part of the trade study for the upcoming Aerosol-Convective Clouds and Precipitation (A-CCP) Decadal Survey mission



BUT, WHY?

- It's fun. Having other people use your code to do new things is deeply satisfying.
- It's profitable. If your project succeeds and you have others contribute to it everybody profits!
- It's good. It is a key plank in scientific reproducibility. It keeps you honest.



10:30	Scott Collis: What is open science? Framing discussions and some of our experiences.
10:45	Mariko Oue: Open Sourcing Radar Simulators: Efforts and Challenges.
11:00	Adam Theisen: Atmospheric data Community Toolkit (ACT): An Open-Source Library for Connecting Users to Data.
11:15	Joseph Hardin: PyDSD, PARSQUANTS, and experience transitioning open source code into an ARM VAP.
11:30	William Gustafson: Thinking About LASSO and Open Sourcing
11:45	Peter Marinescu: TOBAC: A New Framework for Tracking Clouds in Different Datasets
12:00 to 12:30	Panel discussion with presenters on the place for Open Science within CESD and how we can be lowering barriers to entry.



Squeezing Giri in!