

**CURRENT AND PENDING SUPPORT**  
**12/20/2019**

**RYAN ABERNATHEY**

<b>Supporting Agency</b> <b>Project Title</b>	<b>Award</b> <b>Amount</b>	<b>Project Period</b>	<b>Man-Month</b> <b>Acad. Sum. Cal.</b>	<b>Location</b>
<b><u>A. Current Support:</u></b>				
<b>Moore Foundation</b> <b>MOORE #8434</b> PANGEO Climate Data Science Lab (Abernathey, R., PI)	\$806,072	9/12/19 - 11/1/20	NC	LDEO
<b>NSF - OCE 19-12325</b> Collaborative Research: Ocean Transport and Eddy Energy (Abernathey, R., PI)	\$49,161	9/1/19 - 8/31/22	.5/.5/.5	LDEO
<b>NSF - OCE 15-53593</b> CAREER: Evolution of Ocean Mesoscale Turbulance in a Changing Climate (Abernathey, R., PI)	\$592,738	2/15/16 - 1/31/20	NC/2/2/2	LDEO
<b>NYU - NYU F7831-01</b> Fluxes of Heat, Carbon and Oxygen at SWOT Scales (Abernathey, R., PI)	\$291,300	4/27/16 - 4/26/20	0.5/1/1/0.5	LDEO
<b>NSF - OAC 18-35778</b> Collaborative Research: Framework: Data: Toward Exascale Community Ocean Circulation Modeling (Abernathey, R., PI; w/ Dussin, R.)	\$254,103	11/1/18 - 10/31/22	NC/NC/NC/1	LDEO
<b>NSF - OCE 17-40648</b> Collaborative Research: EarthCube Integration: Pangeo: An Open Source Big Data Climate Science Platform (Abernathey, R., PI; Henderson, N., Lepore, C., Seager, R., Tippet, M., Co-PIs w/ Crone, T.)	\$794,830	9/1/17 - 8/31/20	NC	LDEO
<b>Sloan Foundation</b> <b>SLOAN FG-20166627</b> Sloan Fellowship in Ocean Sciences (Abernathey, R., PI)	\$55,000	9/15/16 - 9/14/20	NC	LDEO
<b><u>B. Pending Support:</u></b>				
<b>NSF - AABP9838</b> STC: Learning the Earth with Artificial Intelligence and Physics (LEAP) (Gentine, P., PI; Abernathey, R., McKinley, G., CO-PIs)	\$25,000,000	6/1/21 - 5/31/26	1/YR	SEAS
<b>NYU - #16545</b> Multiscale Machine Learning in Coupled Earth System Modeling (Abernathey, R., PI)	\$736,575	7/1/20 - 6/30/25	1/YR	LDEO
<b>NYU - #16528</b> Inferring Ocean Transport from SWOT (Abernathey, R., PI)	\$522,334	6/1/20 - 5/31/24	0.5/YR	LDEO
<b>UNIV.WASH - #16113R</b> Observation-based estimates of the vertical distribution of mesoscale eddy kinetic energy in the global ocean (Abernathey, R., PI w/ Jones, C.S.)	\$162,849	7/1/19 - 6/30/22	.5/.5/.5	LDEO

**RYAN ABERNATHEY**

<b>Supporting Agency Project Title</b>	<b>Award Amount</b>	<b>Project Period</b>	<b>Man-Month Acad. Sum. Cal.</b>	<b>Location</b>
<b>NSF # 16456</b> Collaborative Research: AMOC mechanism showdown: geographic controls of overturning in a coupled climate model (Spencer, C., PI; Abernathey, R., Co-PI)	\$304,590	7/1/20-6/30/23	.25/.25/.25	LDEO
<b>NOAA - #16241</b> Ocean Transport and Eddy Energy (Abernathey, R., PI)	\$49,161	9/1/19 - 8/31/22	.5/.5/.5	LDEO

**C. Outstanding Increments:**

<b>NYU - NYU F7831-01</b> Balance Yr 4: Fluxes of Heat, Carbon and Oxygen at SWOT Scales (Abernathey, R., PI).	\$47,903	4/27/19 - 4/26/20	0.5	LDEO
<b>NSF - OCE 15-53593</b> Yr 5: CAREER: Evolution of Ocean Mesoscale Turbulance in a Changing Climate (Abernathey, R., PI)	\$170,208	2/1/20 - 1/31/21	2	LDEO
<b>Moore Foundation</b> Yrs 2-3: PANGEO Climate Data Science Lab (Abernathey, R., PI)	\$1,500,000	11/2/20 - 11/1/22	NC	LDEO

**D. Proposals Planned to be Submitted in Near Future:**

NONE

**E. Transfer of Support:**

NONE

**F. Other Agencies to Which Proposal Has Been/Will be Submitted:**

NONE

### Current and Pending Support

(See GPG Section II.D.8 for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Cogburn, Courtney D	Other agencies (including NSF) to which this proposal has been/will be submitted.
-----------------------------------	---

Support:	<input checked="" type="checkbox"/> Current	<input type="checkbox"/> Pending	<input type="checkbox"/> Submission Planned in Near Future	<input type="checkbox"/> *Transfer of Support
Project/Proposal Title: 1000 Cut Journey				
Source of Support: Hearst Foundation, Brown Institute for Media Innovation				
Total Award Amount: \$500,000                      Total Award Period Covered:				
Location of Project: Columbia University and Stanford University				
Person-Months Per Year Committed to the Project.    4                      Cal:                      Acad:3                      Sumr: 1				

Support:	<input checked="" type="checkbox"/> Current	<input type="checkbox"/> Pending	<input type="checkbox"/> Submission Planned in Near Future	<input type="checkbox"/> *Transfer of Support
Project/Proposal Title: Social Justice and Technology				
Source of Support: Oculus				
Total Award Amount: \$300,000                      Total Award Period Covered:				
Location of Project: Columbia University				
Person-Months Per Year Committed to the Project.    4                      Cal:                      Acad: 3                      Sumr: 1				

Support:	<input type="checkbox"/> Current	<input checked="" type="checkbox"/> Pending	<input type="checkbox"/> Submission Planned in Near Future	<input type="checkbox"/> *Transfer of Support
Project/Proposal Title: STC: Learning the Earth with Artificial Intelligence and Physics (LEAP)				
Source of Support: NSF Science and Technology Centers				
Total Award Amount: \$25,000,000                      Total Award Period Covered: 6/1/2021 – 5/31/2026				
Location of Project: Columbia University				
Person-Months Per Year Committed to the Project.    1                      Cal:                      Acad:                      Sumr: 1				

Support:	<input type="checkbox"/> Current	<input type="checkbox"/> Pending	<input type="checkbox"/> Submission Planned in Near Future	<input type="checkbox"/> *Transfer of Support
Project/Proposal Title:				
Source of Support:				
Total Award Amount: \$                      Total Award Period Covered:				
Location of Project:				
Person-Months Per Year Committed to the Project.                      Cal:                      Acad:                      Sumr:				

Support:	<input type="checkbox"/> Current	<input type="checkbox"/> Pending	<input type="checkbox"/> Submission Planned in Near Future	<input type="checkbox"/> *Transfer of Support
Project/Proposal Title:				
Source of Support:				
Total Award Amount: \$                      Total Award Period Covered:				
Location of Project:				
Person-Months Per Year Committed to the Project.                      Cal:                      Acad:                      Sumr:				

\*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.



## Current and Pending Support

(See GPG Section II.D.8 for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Pierre Gentine	Other agencies (including NSF) to which this proposal has been/will be submitted.
Support: <input checked="" type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support Project/Proposal Title: Cross-scale land-atmosphere experiment (CSLAEX)  Source of Support: DOE Atmospheric Systems Research Total Award Amount: \$750,159                      Total Award Period Covered: 07/15/2015-07/14/2020 Location of Project: New York, NY Person-Months Per Year Committed to the Project.    1                      Cal:                      Acad:                      Sumr: 1.5 in years 1,2, 1 in year 3 and 0.5 month in years 4 and 5	
Support: <input checked="" type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support Project/Proposal Title: CAREER: Departure from Monin-Obukhov Similarity Theory (MOST) using high-resolution turbulence models  Source of Support: NSF Hydrologic Sciences Total Award Amount: \$450,748                      Total Award Period Covered: 03/01/2016-02/28/2021 Location of Project: New York, NY Person-Months Per Year Committed to the Project.    0.5                      Cal:                      Acad:                      Sumr: 0.5	
Support: <input checked="" type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support Project/Proposal Title: Biosphere-atmosphere regulations of droughts assessed using microwave and solar-induced fluorescence observations and improved plant water stress representation  Source of Support: NOAA MAPP Total Award Amount: \$420,443                      Total Award Period Covered: 07/01/2017-06/30/2020 Location of Project: New York, NY Person-Months Per Year Committed to the Project.    0.5                      Cal:                      Acad:                      Sumr: 0.3	
Support: <input checked="" type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support Project/Proposal Title: A Lagrangian study of unsaturated downdrafts, cold pool dynamics, and their role in convective initiation and organization  Source of Support: NSF CLD Total Award Amount: \$381,469                      Total Award Period Covered: 01/01/2017-12/31/2020 Location of Project: New York, NY Person-Months Per Year Committed to the Project.    0.25                      Cal:                      Acad:                      Sumr:	
Support: <input checked="" type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support Project/Proposal Title: Collaborative Research: HDR Elements: Software for a new machine learning based parameterization of moist convection for improved climate and weather prediction using deep learning  Source of Support: NSF Total Award Amount: \$307,426                      Total Award Period Covered: 06/01/2018-05/31/2021 Location of Project: New York, NY Person-Months Per Year Committed to the Project.    0.4                      Cal:                      Acad:                      Sumr: 0.3	
*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.	



**CURRENT AND PENDING SUPPORT**

12/20//19

GALEN MCKINLEY

<b>Supporting Agency Project Title</b>	<b>Award Amount</b>	<b>Project Period</b>	<b>Man-Month Acad. Sum. Cal.</b>	<b>Location</b>
--	-------------------------	-----------------------	--------------------------------------	-----------------

**A. Current Support**

**U.MICH - UMICHG  
3004565769**                      \$160,699                      6/1/17 - 5/31/20                      .95/YR                      LDEO

Developing a Mechanistic Understanding of Variability in the Atmospheric CO2 Growth Rate Owing to Interannual Climate Oscillations (McKinley, G., PI)

**NSF - OCE 18-18501**                      \$197,103                      12/1/17 - 3/31/20                      1/1/NC                      LDEO

Collaborative Research: Uncertainty in predictions of 21st century ocean biogeochemical change (McKinley, G., PI w/Fay, A.)

**B. Pending Support**

**NSF - AABP9838**                      \$25,000,000                      6/1/21 - 5/31/26                      2/YR                      SEAS

STC: Learning the Earth with Artificial Intelligence and Physics (LEAP) (Gentine, P., PI; Abernathey, R., McKinley, G., CO-PIs)

**NASA - #16473**                      \$1,578,022                      5/1/20 - 4/30/23                      1/YR                      LDEO

Impacts of Changing Sea Ice on Arctic Marine Primary Production at Benthic Carbon Flux (McKinley, G., PI; Juhl, A., Subramaniam, A., Yuan, X., Co-Is)

**NOAA - #16466**                      \$442,456                      9/1/20 - 8/31/23                      .5/YR                      LDEO

Combining Data and Models for Robust Estimates of Global Air-Sea CO2 Fluxes (McKinley, G., PI; Zheng T., Co-PI)

**NSF - #16445**                      \$348,445                      1/1/20 - 12/31/22                      1/YR                      LDEO

Collaborative Research: Forced drivers of trends in ocean biogeochemistry: Volancos and atmospheric pCO2 (McKinley, G., PI w/Fay, A.)

**C. Outstanding Increments:**

NONE

**D. Proposals Planned to be Submitted in Near Future:**

NONE

**E. Transfer of Support:**

NONE

**F. Other Agencies to Which Proposal Has Been/Will be Submitted:**

NONE

## Current and Pending Support

(See GPG Section II.D.8 for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.			
Investigator: Tian Zheng (page 1)	Other agencies (including NSF) to which this proposal has been/will be submitted. None		
Support: <input checked="" type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support			
Project/Proposal Title: Decoding the neural basis of resting-state functional connectivity mapping (co-I)			
Source of Support: NIH National Institute of Mental Health (NIMH), RF1MH114276			
Total Award Amount: \$ 4,300,000		Total Award Period Covered: 07/20/2017 - 07/19/2021	
Location of Project: Columbia University			
Person-Months Per Year Committed to the Project.	1.0	Cal:	Acad:      Sumr: 1.00
Support: <input checked="" type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support			
Project/Proposal Title: Computational and circuit mechanisms underlying motor control (Co-I)			
Source of Support: NIH National Institute of Neurological Disorders and Stroke (NINDS), U19NS104649			
Total Award Amount: \$15,916,093		Total Award Period Covered: 09/25/2017 - 07/31/2022	
Location of Project: Columbia University			
Person-Months Per Year Committed to the Project.	0.60	Cal:	Acad:      Sumr: 0.60
Support: <input checked="" type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support			
Project/Proposal Title: BIGDATA: F: Statistical Foundation of Predictivity: a Novel Architecture for Big Data Learning (co-PI)			
Source of Support: National Science Foundation, IIS-1741191			
Total Award Amount: \$900,000		Total Award Period Covered: 01/01/2018 - 12/31/2020	
Location of Project: Columbia University			
Person-Months Per Year Committed to the Project.	0.5	Cal:	Acad:      Sumr: 0.5
Support: <input checked="" type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support			
Project/Proposal Title: Big Data Methods for Comprehensive Similarity based Risk Prediction			
Source of Support: NIH National Library of Medicine (NLM), R01LM013061			
Total Award Amount: \$2,236,063		Total Award Period Covered: 02/12/2019 - 01/31/2024	
Location of Project: Columbia University			
Person-Months Per Year Committed to the Project.	1.2	Cal: 1.2	Acad:      Sumr:
Support: <input type="checkbox"/> Current <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support			
Project/Proposal Title: RTG: Research Training in Physics- and Data-based Modeling, Analysis and Computation at Columbia University			
Source of Support: National Science Foundation			
Total Award Amount: \$2,177,452		Total Award Period Covered: 08/15/2020 – 08/15/2025	
Location of Project: Columbia University			
Person-Months Per Year Committed to the Project.		Cal:	Acad:      Sumr:
*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.			

## Current and Pending Support

(See GPG Section II.D.8 for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.			
Investigator: Tian Zheng (page 2)	Other agencies (including NSF) to which this proposal has been/will be submitted. None		
Support: <input type="checkbox"/> Current <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support			
Project/Proposal Title: Combining data and models for robust estimates of global air-sea CO2 fluxes			
Source of Support: NOAA			
Total Award Amount: \$447,280		Total Award Period Covered: 9/1/2020 - 8/31/2023	
Location of Project: Columbia University			
Person-Months Per Year Committed to the Project.    0.5                      Cal:                      Acad:                      Sumr: 0.5			
Support: <input type="checkbox"/> Current <input checked="" type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support			
Project/Proposal Title: STC: Learning the Earth with Artificial intelligence and Physics			
Source of Support: NSF			
Total Award Amount: \$25,000,000		Total Award Period Covered: 6/1/2021 – 5/31/2026	
Location of Project: Columbia University			
Person-Months Per Year Committed to the Project.    1                              Cal:                              Acad:                              Sumr: 1			
Support: <input type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support			
Project/Proposal Title:			
Source of Support:			
Total Award Amount: \$		Total Award Period Covered:	
Location of Project:			
Person-Months Per Year Committed to the Project.                      Cal:                      Acad:                      Sumr:			
Support: <input type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support			
Project/Proposal Title:			
Source of Support:			
Total Award Amount: \$		Total Award Period Covered:	
Location of Project:			
Person-Months Per Year Committed to the Project.                      Cal:                      Acad:                      Sumr:			
Support: <input type="checkbox"/> Current <input type="checkbox"/> Pending <input type="checkbox"/> Submission Planned in Near Future <input type="checkbox"/> *Transfer of Support			
Project/Proposal Title:			
Source of Support:			
Total Award Amount: \$		Total Award Period Covered:	
Location of Project:			
Person-Months Per Year Committed to the Project.                      Cal:                      Acad:                      Sumr:			
*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.			