# SCIENTIFIC COMPUTING: Open. Accessible. Supported by you.

2020 Small Development Grants Prospectus



# As the open source scientific data stack grows more complex and connected each day, our projects continue to serve as essential links in the chain.

Through our Small Development Grants program, NumFOCUS provides direct project funding to help meet crucial sustainability needs. These grants cover:

- > Technical infrastructure
- > Documentation updates
- > Accessibility measures
- > Website upgrades
- > Community-building programs
  - > Diversity and inclusion initiatives

#### YOUR SUPPORT

NumFOCUS relies on partnerships with corporate sponsors and individual donors to fund our Small Development Grants. Thanks to the generosity of our community stakeholders, every year we have increased the amount we award, from \$13,000 in 2017 to \$85,000 in 2019.



We now receive more high-quality proposals than our current budget can accommodate. Partner with NumFOCUS to help us support these foundational open source tools!



### **OUR PROJECTS**

#### **NUMF**OCUS SPONSORED PROJECTS 削 将 **PyTables** SPYMC3 pandas Zarr lathJax Shogun Zarr SciPy MathJax **PyTables** PyMC3 pandas and had had Jupyter QuantEcon mlpack **Open Journals** Numpy Matplotlib QuantEcon mlpack nteract Jupyter julia **IP**[y]: **R** Econ RopenSci IPython JuMP Econ-ARK FEniCS Project Julia **I**Python rOpenSci slos PALISADE CONDA-FORGE DASK PALISADE Dask Cantera conda-forge Bokeh Blosc Astopy MD xarray ANALYS sunpy MDAnalysis SymPy SunPy Stan xarray scikit-image

#### AFFILIATED PROJECTS:

- AiiDA
- > ArviZ
- CB-Geo MPM
- > Clawpack
- > Colour
- > Conda
- > CuPy
- Cython
- > Dash
- Data Retriever

- Devito
- DyND
- Effective Quadratures
- Gensim
- GeoPandas
- GonumNetworkX
- Numba
- > ObsPy
- Project Optuna

- > Orange
- > pomegranate
- > PSL
- > pvlib
- > PyBaMM
- > PySAL
- > Python(X,Y)
- > PyTorch-Ignite
- > QuTiP
- > scikit-bio

- > scikit-learn
- > signac
- > Solcore
- > Spack
- > Spyder
- Statsmodels
- > Theano
- > Yellowbrick

### GRANT FUNDING: A SELECTION OF PROPOSALS FUNDED IN 2019

PROJEC	T	PROPOSAL TITLE	AMOUNT
Arviz	ArviZ	Educational material and workshops for exploratory analysis of Bayesian models with ArviZ	\$2,500
0	Astropy	Developing spectroscopic reduction tools	\$5,000
BLOSE	Blosc	Document Blosc2 frame format and freeze API	\$5,000
	Cantera	Cantera packaging and CI infrastructure upgrades	\$2,500
CONDA-FORGE	conda-forge	Unified Recipe Regenerator	\$ 3,750
	Gensim	Organize Gensim documentation and improve discovery	\$5,000
julia	Julia	Julialmages developer meeting	\$4,000
<b>X</b> MathJax	MathJax	Improved dyslexia support via Fine grained synchronized highlighting	\$4,688
	Matplotlib	Matplotlib Cheatsheets	\$5,000
pandas	pandas	Encourage contributors from minority groups to lead efforts in improving pandas documentation	\$3,000
RopenSci	rOpenSci	Create an open online rOpenSci Community Contributing Guide	\$3,000
S	SciPy	SciPy development documentation overhaul	\$4,274

### **PROCESS AND FEEDBACK**

The NumFOCUS Small Development Grants program is a community collaboration which addresses project needs while also engaging dedicated volunteers. See the process below:

STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
Projects submit proposals of up to \$5,000 three times per year	Proposals are reviewed by our community-driven SDG committee	SDG Committee submits recommendations to NumFOCUS Board of Directors	Board approves recommendations and NumFOCUS disburses funds to projects	Projects report outcomes to NumFOCUS

The things we accomplished followed the original proposal. This is because Blosc2 was in the works for quite a long time, and we just needed some free time (which this grant helped a lot to find) to consolidate what we were after. ...[Small Development Grants] can be extremely useful for bringing important developments to the community. —Blosc



We upgraded the conda installers for Cantera to be able to install the MATLAB and C++ interfaces. These packages are now publicly available to install. In addition, we improved the test infrastructure for the project by including additional samples and examples to run when the test suite runs on our Cl services.





We ended up re-writing a conda-build skeleton in order to make it generate consistent recipes for multiple languages. The experience was smooth and [with this SDG] NumFOCUS helped us make a significant headway in improving the bot's updates.

-conde-forge



...we merged the PR at the end October. The PR implemented all the functionality we set out to accomplish in the project. The grant covered only a minuscule amount of the (highly expert) work, but every bit counts, so we're grateful.

-Gensim

# JOIN US AS A NumFOCUS CORPORATE SPONSOR!

Your support will accelerate improvements in usability, accessibility, and efficiency for crucial open source scientific software tools. Join our network of corporate sponsors and enjoy the benefits listed below!

BENEFITS	PLATINUM	GOLD	SILVER	BRONZE	EMERGING LEADER
	\$100,000	\$50,000	\$25,000	\$10,000	Under \$10,000
Subscription to NumFOCUS project release updates and news	~	~	~	~	~
Use of the NumFOCUS Partner Badge on your website	~	<b>~</b>	~	~	~
Logo placement on numfocus.org	~	~	~	<b>~</b>	~
Company/Organization profile on NumFOCUS.org	~	~	~	<b>~</b>	
In-person presentation (Platinum and Gold) or video presentation (Silver) to the team of your choice by a NumFOCUS Project Core Developer	~	~	~		
Seat on the NumFOCUS Advisory Council	~	~			
Logo used on all promotional material and media channels	~	~			
Naming of a sponsored educational workshop series	~				
Invitation to attend a project developer summit partner day	~				
Sponsor benefits at PyData events of your choice	Platinum at one event	Gold at one event	Gold at one event	Two Free Passes	No PyData benefit

Small Development Grants are a great way to provide concrete help in several ways to NumFOCUS projects. As both co-chair of the SDG Committee and a core developer of a NumFOCUS Sponsored Project, I've seen how effective these grants have been for project communities. Overall, SDGs make it possible for open source projects to go forward faster and further!



DAVID PEREZ-SUAREZ SDG Committee Co-Chair and SunPy Core Developer

The Small Development Grant program is a critical resource for NumFOCUS projects. Among other things, SDGs enable projects to release new versions, to develop new training materials, and to host in-person leadership meetings to define the future of the project. Cantera has used SDG funding in each of the last several years to support these activities. As the co-chair of the SDG Committee, I see similar projects every funding round, and it is an awesome feeling to be able to tell them, "Here is the money to do what your project needs to excel".



BRYAN WEBER SDG Committee Co-Chair and Cantera maintainer



# NumFOCUS CORPORATE SPONSORS 2020



# OPEN CODE = BETTER SCIENCE

NumFOCUS is a 501(c)(3) public charity in the United States. Your donation is tax-deductible to the extent provided by US law. For more information on partnerships with NumFOCUS, please e-mail <u>info@numfocus.org</u>

If you're interested in learning more about where your contributions can make a difference in the NumFOCUS ecosystem, how NumFOCUS will acknowledge you as a Small Development Grant sponsor, or simply how to make a donation, please get in touch!

#### **GET IN TOUCH**

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