

# Scientific Python

From GitHub to TikTok



**Juanita Gomez (Scientific Python) - [juanitagomezr2112@gmail.com](mailto:juanitagomezr2112@gmail.com)**

Melissa Mendonça (NumPy) - [melissawm@gmail.com](mailto:melissawm@gmail.com)

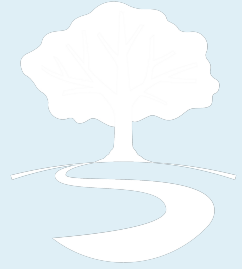
K. Jarrod Millman (NetworkX) - [millman@berkeley.edu](mailto:millman@berkeley.edu)

Inessa Pawson (NumPy) - [inessa@albuscode.org](mailto:inessa@albuscode.org)

Stéfan van der Walt (scikit-image, NetworkX) - [stefanv@berkeley.edu](mailto:stefanv@berkeley.edu)

# A bit about me...

## Juanita Gomez Romero



Colombian



Mathematician



Former Spyder developer



PhD student at UCSC



Community manager



Singer



juanis2112

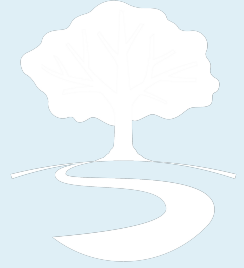


@juanitagomezr

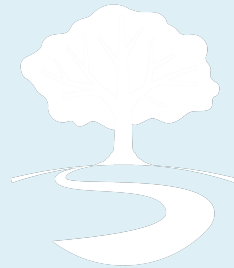


juanitagomezr2112@gmail.com

# What is Scientific Python?



# Scientific Python



## Ecosystem



## Community



## Project

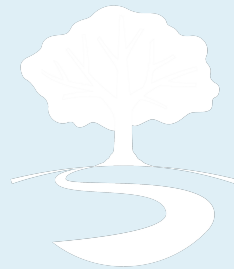


- ❑ Python packages for scientific research and data analysis

- ❑ Developers, maintainers and users of tools in the ecosystem

- ❑ Support the ecosystem and grow the community

# What is the Scientific Python project?



<https://github.com/scientific-python>

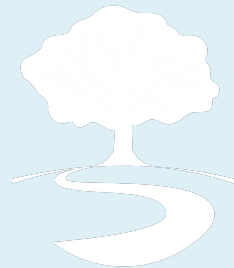
The screenshot shows the GitHub profile for the Scientific Python project. At the top left is the project's logo, a green tree with a winding path. To its right, the name "Scientific Python" is displayed in bold, followed by the text "Community developed, community owned" and the website URL "https://scientific-python.org/". Below this is a navigation bar with tabs for "Overview", "Repositories 21", "Packages", "Teams 10", and "People 32". The "Pinned" section contains six repository cards, each with a repository icon, name, visibility status, description, and statistics for languages, stars, and forks.

Repository Name	Visibility	Description	Language	Stars	Forks
specs	Public	Scientific Python Ecosystem Coordination (SPEC) documents	Python	22	21
scientific-python-hugo-theme	Public	Hugo theme based on the design for numpy.org	HTML	9	7
scientific-python.org	Public	Source code for the Scientific Python Ecosystem project page.	HTML	13	17
blog.scientific-python.org	Public	Community blog posts on scientific-python.org	Jupyter Notebook	7	13
lazy_loader	Public	Populate library namespace without incurring immediate import costs	Python	22	6
yaml2ics	Public	Convert YAML calendar entries to ICS	Python	5	6

- ❑ Communication between projects
- ❑ Joint future



# ***What*** is the Scientific Python project?



## **SCIENTIFIC PYTHON ECOSYSTEM COORDINATION**

SPECs provide operational guidelines for projects in the scientific Python ecosystem. All community members and ecosystem projects are welcome to participate in the SPEC process. The SPEC process is described in the [SPEC Purpose and Process](#), [SPEC Steering Committee](#), and [SPEC Core Projects](#) documents. Community discussions take place on the [SPECs Discourse forum](#).

Contributors must adhere to our [code of conduct](#).

### **Title**

[SPEC 0 – Minimum Supported Versions](#)

[SPEC 1 – Lazy Loading for Submodules](#)

[SPEC 2 – API Dispatch](#)

[SPEC 3 – Accessibility](#)

### **Endorsed By**

DRAFT

DRAFT

DRAFT

DRAFT

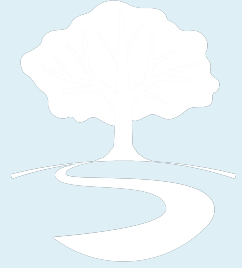
In this talk:

- ☐ **Community building**
- ☐ **Community outreach**



**Cross-project policies**

# Why?



Open source is about:

Communicating



Teaching



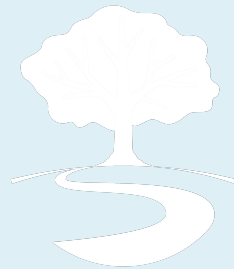
Collaborating



**Goal:** Unify the community by promoting integration, diversity, and wide participation, while generating resources that help bring contributors, developers, and users together.

# Who?

Community of volunteers from the Scientific Python packages of the ecosystem.



## Community managers



Jarrod Millman



Juanita Gomez



Kira Evans



Melissa Weber  
Mendonça



Marianne Corvellec



Mridul Seth



Ross Barnowski



Stefan van der Walt



Pamphile Roy

## Core Projects



IPython



Matplotlib



NetworkX



NumPy



pandas



scikit-image



scikit-learn



SciPy



# Who?

## Steering committee



Brigitta Sipőcz



Matthias Bussonnier



Georgiana Elena



Paul Ivanov



Jarrod Millman



Juan Nunez-Iglesias



Joris Van den  
Bossche



Juanita Gomez



Kira Evans



Kristen Thyng



Lucy Liu



Melissa Weber  
Mendonça



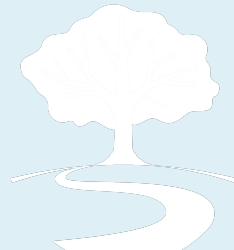
Madicken Munk



Elliott Sales de  
Andrade



Ralf Gommers



## SPEC STEERING COMMITTEE

### DESCRIPTION

The SPEC process is managed by the Steering Committee. The Steering Committee represents the interests of the ecosystem and the community. The Steering Committee also represent the interests of the [Core Projects](#) and is composed partially of individuals who are active Core Project contributors. In particular, the Steering Committee members

- monitor the [SPECs discussion forum](#),
- determine which proposed SPECs are accepted as described in the SPEC [Purpose and Process](#),
- approve changes to the SPEC process including to the [SPEC Purpose and Process](#), [SPEC Steering Committee](#), and [SPEC Core Projects](#), as well as
- serve as a communication channel to and from projects they contribute to as well as the larger ecosystem.

# How?

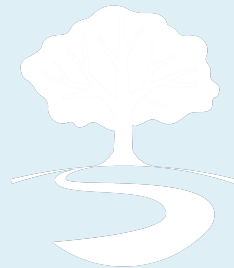
## 1. Documentation



<https://scientific-python.org>

- ❑ Central place for information
- ❑ Resources for many of the projects

1. Orientation for newcomers
2. Interviews for community introductions
3. Demos for problem solving

A screenshot of the Scientific Python website. The header includes navigation links for Home, Blog, and Discussion Forum. The main title "Scientific Python" is accompanied by a small tree icon and the tagline "Community developed, community owned". A "GET STARTED" button is visible. A dark blue banner below the header reads "SPECs announced at SciPy 2021" with the date "2021-04-21". The main content area features six white boxes, each describing a key principle of the ecosystem: Built on Python, Open Source, Community-Driven, Extensive and High Quality, Broadly Applicable, and Coordinated, Readable, Reproducible.

Home Blog Discussion Forum

# Scientific Python

Community developed, community owned

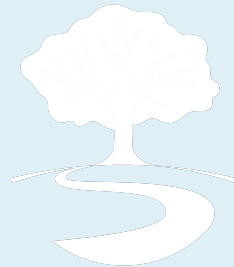
GET STARTED

**SPECs announced at SciPy 2021** 2021-04-21

- BUILT ON PYTHON**  
Python is a powerful, general-purpose programming language. The scientific Python ecosystem provides the tools that make Python the premier language for scientific computing.
- OPEN SOURCE**  
Distributed under unrestrictive open source licenses, projects are developed and maintained publicly and accessible to all.
- COMMUNITY-DRIVEN**  
Projects are developed by open communities composed primarily of the users of the software.
- EXTENSIVE AND HIGH QUALITY**  
The scientific Python ecosystem comprises performant, well-tested libraries providing tools for computing across all scientific domains.
- BROADLY APPLICABLE**  
The ecosystem is widely used in scientific research and teaching.
- COORDINATED, READABLE, REPRODUCIBLE**  
Projects in the ecosystem are completely interoperable, providing the basis for readable, reproducible scientific computation.

# How?

## 1. Documentation



<https://learn.scientific-python.org>

1. Contributor Guide
2. Maintainer Guide
3. Community Guide

# Learn Scientific Python



### Contributor Guide

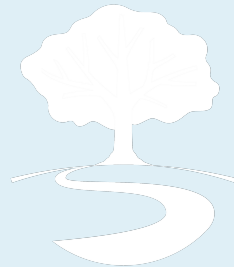
Learn best-practices for contributing to Scientific Python.

### Maintainer Guide

Learn how to build, coordinate, and sustain a healthy project.

# How?

## 1. Documentation



### Orientation for newcomers

A screenshot of a YouTube video player. The search bar contains 'scientific-python'. The video thumbnail shows a woman with long dark hair, wearing a black jacket over a red top, gesturing with her hands. The text 'WHY CONTRIBUTE' is overlaid in large, bold, yellow and blue letters. Below the video, the title 'Why Contribute to Scientific Python' is visible. At the bottom, the channel name 'Scientific-Python' is shown with 123 subscribers, a 'SUBSCRIBED' button, and a notification bell icon.

YouTube scientific-python × 🔍

**WHY CONTRIBUTE**

Why Contribute to Scientific Python

Scientific-Python 123 subscribers SUBSCRIBED 🔔

A screenshot of a YouTube video player. The search bar contains 'scientific-python'. The video thumbnail shows the same woman from the first video, with her hands raised. The text '5 WAYS TO CONTRIBUTE' is overlaid in large, bold, orange and white letters. Below the video, the title '5 Ways to Contribute to Scientific Python without Coding' is visible. At the bottom, the channel name 'Scientific-Python' is shown with 123 subscribers, a 'SUBSCRIBED' button, and a notification bell icon.

YouTube scientific-python × 🔍

**5 WAYS TO CONTRIBUTE**

5 Ways to Contribute to Scientific Python without Coding

Scientific-Python 123 subscribers SUBSCRIBED 🔔

A screenshot of a YouTube video player. The search bar contains 'scientific-python'. The video thumbnail shows the woman pointing towards various icons representing data science and programming, including a brain, a gear, a cube, and a wheel. The text 'CHOOSE A PROJECT' is overlaid in large, bold, green and blue letters. Below the video, the title 'How to choose a project to contribute to Scientific Python?' is visible. At the bottom, the channel name 'Scientific-Python' is shown with 123 subscribers, a 'SUBSCRIBED' button, and a notification bell icon.

YouTube scientific-python × 🔍

**CHOOSE A PROJECT**

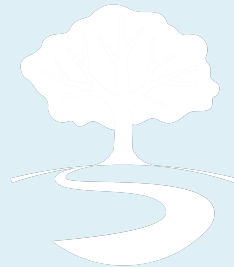
How to choose a project to contribute to Scientific Python?

Scientific-Python 123 subscribers SUBSCRIBED 🔔

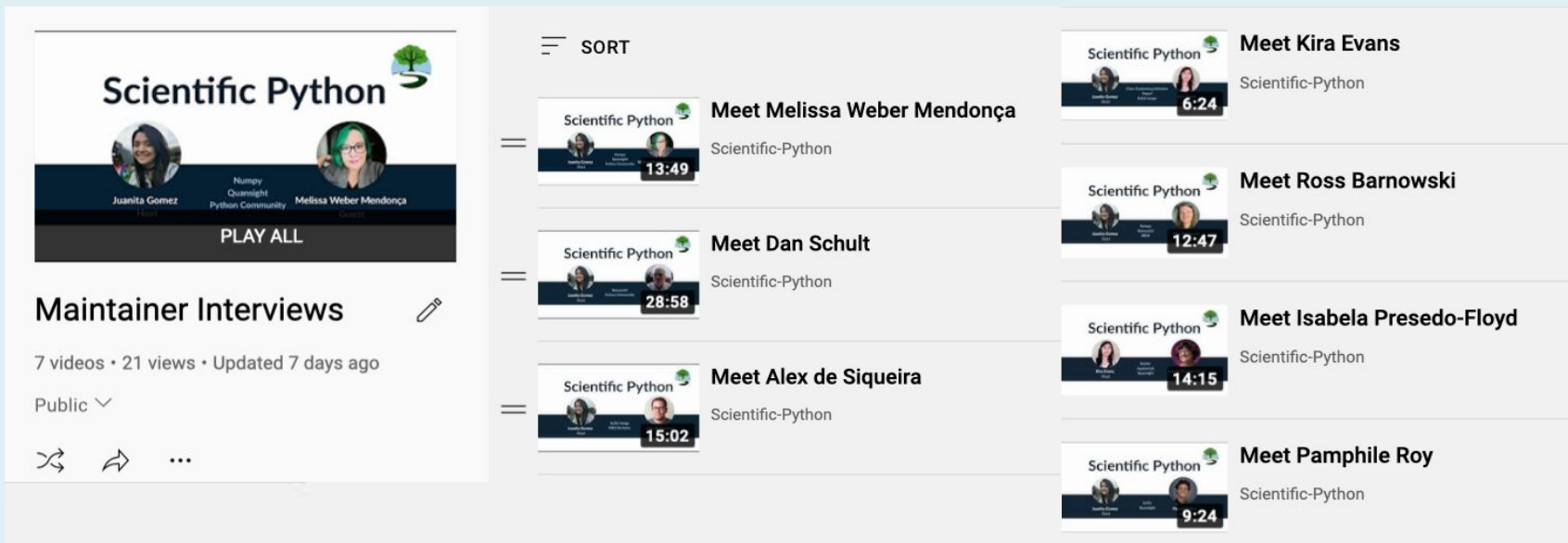
<https://bit.ly/3OIhe1l>

# How?

## 1. Documentation



### Interviews for community introductions



The screenshot shows a YouTube playlist interface. On the left is a video player with a thumbnail for 'Scientific Python' featuring Juanita Gomez, Numpy Quantight, and Melissa Weber Mendonça. Below the player is the title 'Maintainer Interviews' and a pencil icon. The main area displays a list of six interview videos, each with a thumbnail, title, channel name, and duration. The videos are: 'Meet Kira Evans' (6:24), 'Meet Melissa Weber Mendonça' (13:49), 'Meet Dan Schult' (28:58), 'Meet Alex de Siqueira' (15:02), 'Meet Isabela Presedo-Floyd' (14:15), and 'Meet Pamphile Roy' (9:24). All videos are from the channel 'Scientific-Python'.

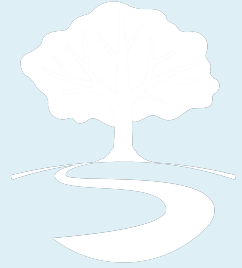
Video Title	Channel	Duration
Meet Kira Evans	Scientific-Python	6:24
Meet Melissa Weber Mendonça	Scientific-Python	13:49
Meet Dan Schult	Scientific-Python	28:58
Meet Alex de Siqueira	Scientific-Python	15:02
Meet Isabela Presedo-Floyd	Scientific-Python	14:15
Meet Pamphile Roy	Scientific-Python	9:24

<https://bit.ly/3OQzjL8>

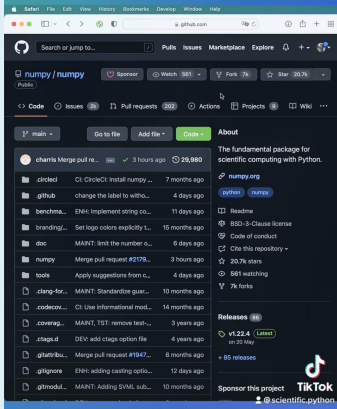
# How?

## 1. Documentation

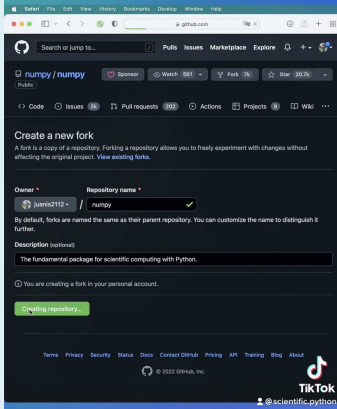
### Demos for problem solving



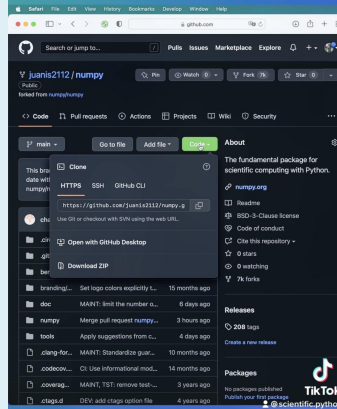
1. Fork the repository using the "Fork" button at the top right of the page.



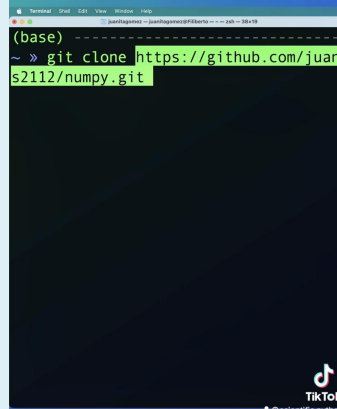
2. Give a name to your fork and click the green "Create fork" button



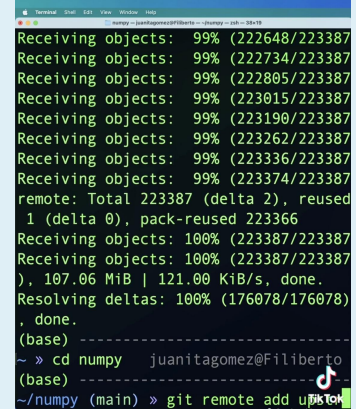
3. Click the green Code button and copy the URL to your fork.



4. Open your terminal and clone the project to your local computer

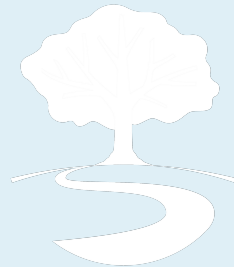


5. Navigate to the folder and add the upstream repository



# How?

## 2. Blogpost



<https://blog.scientific-python.org>

- ❑ Place to share thoughts and ideas
- ❑ Learn about the ecosystem
- ❑ Build knowledge together
- ❑ Integration between several packages
- ❑ Share different perspectives

# Scientific Python Blog

[Submit a post](#)

We welcome contributions from all community members.

[Volunteer to review](#)

Learn how you can help the community grow and become a member of the team.

Recent Posts

[GSOC 2022: NETWORKX VF2++ IMPLEMENTATION](#)

 Konstantinos Petridis  June 9, 2022  
 #gsoc  #networkx

[SCIPY INTERNSHIP: 2021-2022](#)

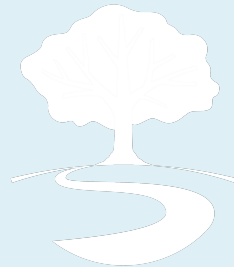
 Smit Lunagariya  June 4, 2022  
 #scipy  #internship  #meson-build  #uarray

# How?

## 3. Social media



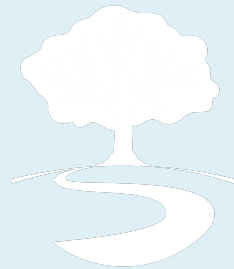
- ❑ Outreach and engagement
- ❑ Direct interaction with users and developers
- ❑ Call people's attention
- ❑ Break barriers between developers and users





# How?

## 3. Social media

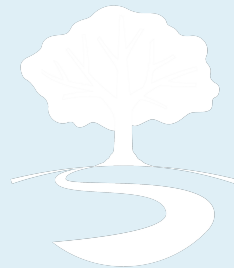


The screenshot shows the YouTube channel page for 'Scientific-Python', which has 131 subscribers. The channel name is accompanied by a logo of a tree with a winding path. Navigation tabs include HOME, VIDEOS, PLAYLISTS, CHANNELS, and ABOUT. Two buttons, 'CUSTOMIZE CHANNEL' and 'MANAGE VIDEOS', are visible in the top right. The 'Uploads' section displays a grid of 12 video thumbnails. Each thumbnail includes the channel logo, a title, a duration, and a view count with the time it was posted. The videos cover topics such as project selection, contributing to the community, and meeting various members of the Scientific Python community.

Video Title	Duration	Views	Posted
Meet Pamphile Roy	9:24	69	7 days ago
How to choose a project to contribute to Scientific...	4:26	123	13 days ago
Meet Isabela Presedo-Floyd	14:15	51	1 month ago
5 Ways to Contribute to Scientific Python without...	5:28	139	1 month ago
Meet Ross Barnowski	12:47	69	1 month ago
Why Contribute to Scientific Python	3:34	258	2 months ago
Meet Kira Evans	6:24	106	2 months ago
Meet Alex de Siqueira	15:02	90	2 months ago
Meet Dan Schult	28:58	105	2 months ago
Meet Melissa Weber Mendonça	13:49	131	2 months ago
Welcome to Scientific Python!	1:38	424	3 months ago
API Dispatch (December 15, 2021)	1:45:27	103	5 months ago

# How?

## 3. Social media



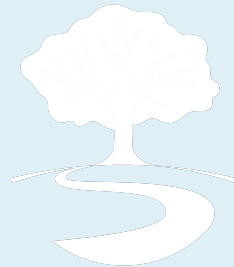
The image shows the Instagram profile for **scientific.python**. The profile header includes the account name, an "Edit Profile" button, and statistics: 11 posts, 92 followers, and 170 following. The bio states "Scientific Python Community developed, community owned. Community Videos" and provides a YouTube playlist link: [youtube.com/playlist?list=PL7rNFJDy0iz40QvL6vqvqaPs5lp-zhZdY](https://www.youtube.com/playlist?list=PL7rNFJDy0iz40QvL6vqvqaPs5lp-zhZdY). Below the bio are five circular icons representing different content series: SciPy2022, Community, Ecosystem, Contribute, and Interviews.

The main content area displays a grid of video thumbnails. The thumbnails include:

- A group photo of people at a conference.
- A video titled "Five ways to learn about a Scientific Python project".
- A video titled "Advice from Scientific Python developers to new contributors".
- A video titled "How to configure a remote for a fork?".
- A video titled "Three core packages from the Scientific Python ecosystem" featuring Ross Barnowski, Kira Evans, and Alex de Siqueira.
- A video titled "Why Contribute".
- A video titled "DID YOU KNOW?".
- A video titled "Five ways to contribute to Scientific Python without coding".
- A video titled "5 WAYS TO CONTRIBUTE".
- A video titled "How to configure a remote for a fork?".
- A video titled "Scientific Python Interviews".
- A video titled "Scientific Python Interviews".
- A video titled "Scientific Python Interviews".
- A video titled "Scientific Python Interviews".

# How?

## 3. Social media



Five ways to contribute to **Scientific Python** without coding



1

Verify and triage issues using the project's issue tracker



2

Check  open PR's in the project's repository and summarize discussions or test proposed changes

3

Improve the project's documentation by fixing typos, reporting missing parts or creating new content

4

Check if the project uses online platforms for translations such as Crowdin and help translating the interface, webpage or documentation

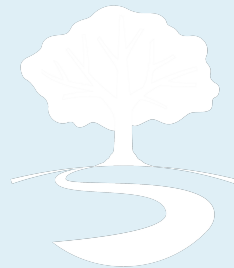
5

Participate in the project's community by getting involved in discussions, helping newcomers or sharing content on social media



# How?

## 3. Social media



**DID  
YOU  
KNOW?**



When first contributing to an open source project, it's best to start with small, self-contained issues.



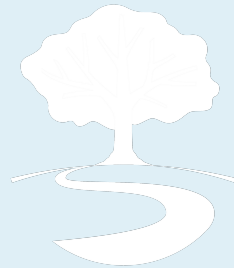
Often, maintainers will label issues with the "good first issue" label, so take a look at those first.




Examples of a good first issue include fixing a small bug, adding tests, fixing documentation typos, or writing up simple documentation.

# How?


## 3. Social media



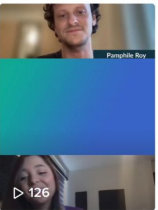
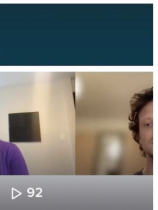

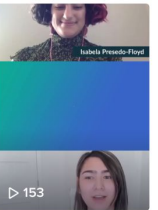

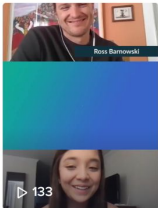
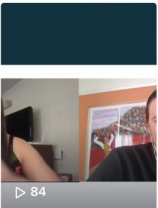
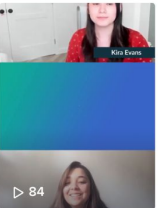
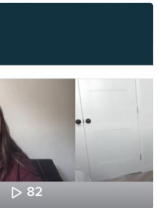
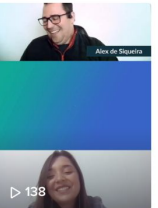

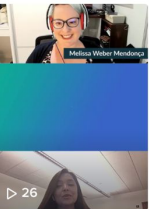


 **scientific.python**  
Scientific Python

[Follow](#)

36 Following 22 Followers 130 Likes  
Community developed, community owned

Videos  Liked

 <p>Scientific Python Three core packages from the Scientific Python ecosystem</p> <p>611</p> <p>Three core package...</p>	 <p>Three reasons to contribute to Scientific Python</p> <p>4296</p> <p>Why should you contrib...</p>	 <p>Pamphile Roy</p> <p>126</p> <p>Pamphile Roy from Sci...</p>	 <p>92</p> <p>Meet Pamphile Roy! He...</p>	 <p>Scientific Python Python developers to new contributors</p> <p>536</p> <p>Listen to advice from...</p>	 <p>Isabela Presedo-Floyd</p> <p>153</p> <p>Isabela Presedo-Floyd f...</p>	 <p>Scientific Python How to configure a remote for a fork?</p> <p>521</p> <p>How to configure a rem...</p>
 <p>Ross Barnowski</p> <p>133</p> <p>Ross Barnowski from N...</p>	 <p>84</p> <p>Meet Ross Barnowski! ...</p>	 <p>Kira Evans</p> <p>84</p> <p>Kira Evans from the Na...</p>	 <p>82</p> <p>Meet Kira Evans. She is...</p>	 <p>Alex de Siqueira</p> <p>138</p> <p>Alex de Siqueira talks a...</p>	 <p>Dan Schult</p> <p>50</p> <p>Dan Schult from Netwo...</p>	 <p>Melissa Weber Mendonça</p> <p>26</p> <p>Melissa Weber Mendo...</p>

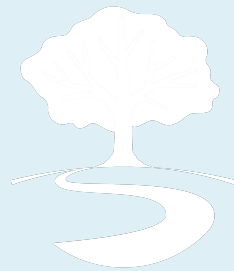
Adv  
Pytho  
to ne

## Scientific Python

Advice from Scientific  
Python developers 🧑🧑  
to new contributors ✨✨

Tik Tok  
@scientific.python

Tik Tok  
@scientific.python



# Where?

Come join us: 



scientific-python.org



scientific-python



Scientific-Python



@scientific\_py



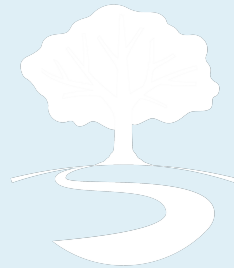
scientific.python



scientific.python



@scientific.python

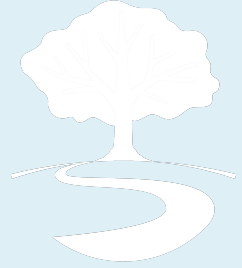


<https://discord.gg/vur45CbWmZ>



<https://discuss.scientific-python.org>

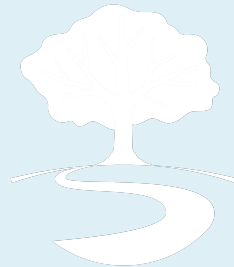
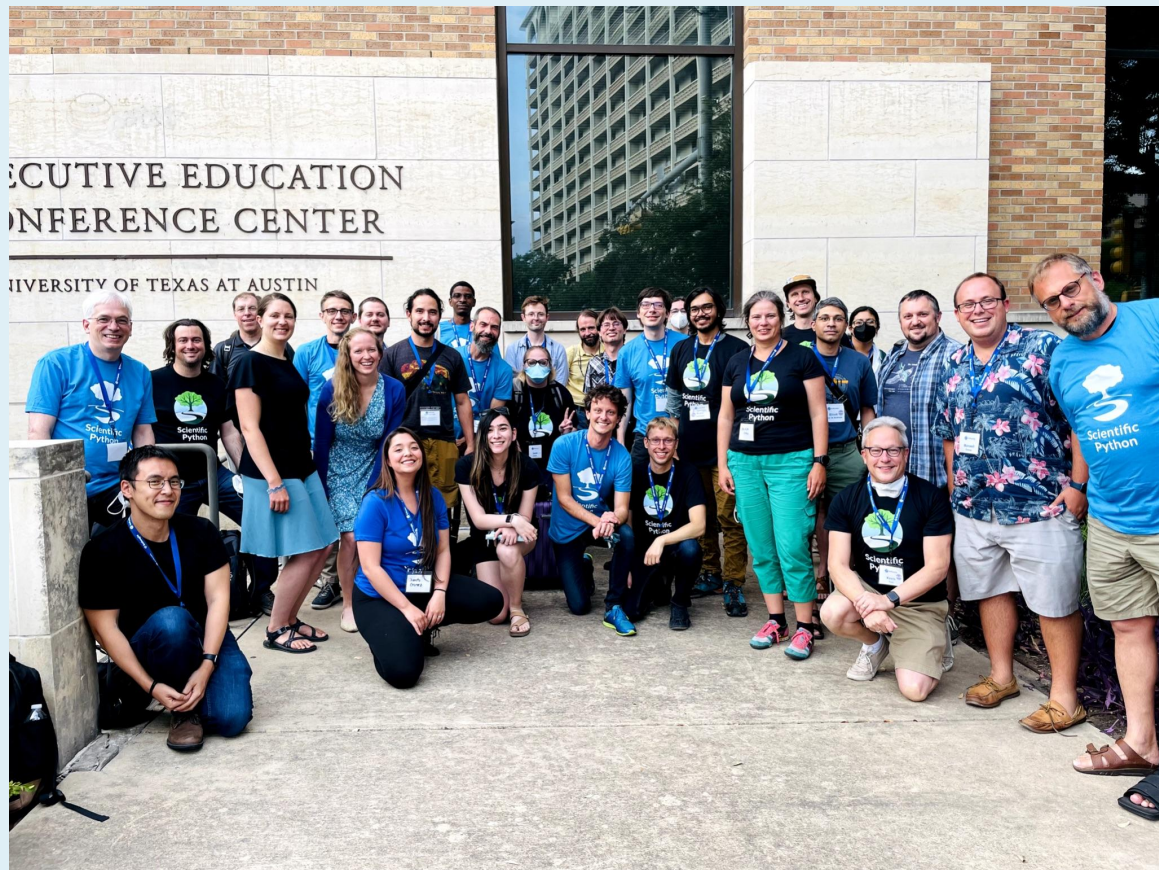
*Finally ...*



- ❑ Understand the needs of users and developers
- ❑ Consider the preferences and behaviors of our audience.
- ❑ Expand the channels of communication in order to reach a greater amount of people.
- ❑ Integrate social media because it is a big part of people's lives!



# Welcome to Scientific Python!



juanis2112



@juanitagomezr



juanitagomezr2112@gmail.com