

# 如何参与到开源项目中： 以SymPy项目为例

# 大纲

- SymPy简介
- 了解贡献要求：查看SymPy贡献须知
- 了解交流途径：查看SymPy的mailing list和gitter社区

# SymPy简介

- SymPy是python的一个科学计算库，用一套强大的符号计算体系完成诸如多项式求值、求极限、解方程、求积分、微分方程、级数展开、矩阵运算等等计算问题
- 主页：<https://github.com/sympy/sympy>
- 选择SymPy的原因：
  - Python是比较热门的语言
  - SymPy有完善的贡献要求文档和活跃的社区，贡献更加容易
  - SymPy支持Good First Issue机制，容易找到适合新人解决的问题
- 可以通过 <https://goodfirstissue.dev/> 找到支持Good First Issue机制的项目

# SymPy简介

- 从项目的README文件中，可以看到关于SymPy安装、使用的一些基本信息。除此之外，能看到为SymPy进行贡献相关的一些资料链接，如贡献须知 [Introduction to Contributing](#), 文档风格指引 [SymPy Documentation Style Guide](#), 还有行为守则 [CODE\\_OF\\_CONDUCT.md](#)

## Contributing

We welcome contributions from anyone, even if you are new to open source. Please read our [Introduction to Contributing](#) page and the [SymPy Documentation Style Guide](#). If you are new and looking for some way to contribute, a good place to start is to look at the issues tagged [Easy to Fix](#).

Please note that all participants in this project are expected to follow our Code of Conduct. By participating in this project you agree to abide by its terms. See [CODE\\_OF\\_CONDUCT.md](#).

# 了解贡献要求

- 贡献须知 Introduction to Contributing 中，介绍了想要为SymPy做贡献，所需要提前做的功课
  - 熟悉SymPy的功能、代码结构（通过教学文档、wiki、相关文献、浏览代码等方式）
  - 阅读SymPy社区的行为守则
  - 参加SymPy社区（邮件列表，Gitter等）
  - 一些建议（如，从简单的“Easy to fix” issue入手等）

# 了解贡献要求

- 行为守则中规定了贡献的一些行为准则

## Our Standards

Examples of behavior that contributes to creating a positive environment include:

- Using welcoming and inclusive language
- Being respectful of differing viewpoints and experiences
- Gracefully accepting constructive criticism
- Focusing on what is best for the community
- Showing empathy towards other community members

Examples of unacceptable behavior by participants include:

- The use of sexualized language or imagery and unwelcome sexual attention or advances
- Trolling, insulting/derogatory comments, and personal or political attacks
- Public or private harassment
- Publishing others' private information, such as a physical or electronic address, without explicit permission
- Other conduct which could reasonably be considered inappropriate in a professional setting

# 了解交流途径

- 从SymPy项目的README.md和贡献须知中， 都可以看到SymPy项目开发者的交流方式主要为邮件列表mailing list和Gitter

Our mailing list is at <https://groups.google.com/forum/?fromgroups#!forum/sympy>.

We have a community chat at [Gitter](#). Feel free to ask us anything there. We have a very welcoming and helpful community.

# 了解交流途径

- Mailing list: <https://groups.google.com/g/sympy>

≡ 网上论坛

sympy

会话

关于

会话

在“sympy@googlegroups.com”中搜索会话

登录

sympy

第 1 - 30 个, 共 6843 个

This is the group for [SymPy](#). If you are interested in contributing, please start [here](#).

Note that the first time you post to this group, the message will be moderated and will not show up right away. This is done as a spam prevention measure. After it is cleared, you will be able to post again without moderation. This is typically done within 24 hours.

	Francesco Bonazzi, ... Oscar Benjamin 14	SymPEP: make MatchPy a SymPy dependency — On Wed, 6 Oct 2021 at 23:36, Francesco Bonazzi <franz.bonazzi@gmail.com> wrote: It would be	上午7:57	☆
	Marcel Oliver, ... Aaron Meurer 5	Idiomatic use of derivative replacements — I wonder if we should somehow refactor Derivative so that derivatives wrt non-Symbols are represented	上午5:04	☆
	Francesco Bonazzi, ... S.Y. Lee 5	[Proposal] Mutable expressions in SymPy — I'm not sure if you have heard about, or familiar with term graph, but I think that this can have	10月5日	☆
	Francesco Biscani, ... Jason Moore 8	A Taylor integrator compatible with SymPy — Cheers, let me know if you have any issue/question. Kind regards, Francesco. On Fri, 1 Oct 2021 at 09	10月1日	☆
	Chris Smith, Aaron Meurer 2	RFC extended Interval — I know this doesn't quite answer your question, but I think we should have two separate classes,	10月1日	☆
	Chris Smith, ... Aaron Meurer 12	emulate a lambda — It is relevant to think about how we might do this in other ways, though, because if we ever want to	10月1日	☆
	Paul Royik, Oscar Gustafsson 3	How to create a symbol with greek subscript — Thank you. It works! On Tuesday, September 28, 2021 at 7:47:13 PM UTC+3 oscar.gu...@gmail.com wro...	9月29日	☆
	Oscar Benjamin 2	1.9 release is delayed — On Sat, 25 Sept 2021 at 23:55, Oscar Benjamin <oscar.j.benjamin@gmail.com> wrote: I was	9月28日	☆
	Oscar Benjamin	SymPY 1.9rc1 released — Hi all, I've just put up SymPy 1.9rc1 which is the release candidate for SymPy 1.9. This is a pre	9月21日	☆
	sandona...@gmail.com, ... Aaron Meurer 9	Lambdify - performance using sympy as the module — I suppose you might be using f = lambdify(x, sin(x), 'scipy'). This produces a function that	9月17日	☆
	Paul Royik, ... Aaron Meurer 11	Difference between f.is_number and bool(f.free_symbols) — The problem is that is_lowercase looks like the assumptions system. So people might bec...	9月15日	☆
	Chris Smith	how to access the new-release candidate (1.9) — Can anyone help me? I would like to make a commit toward 1.9 but don't know how to access that	9月11日	☆
	Zoufiné Lauer-Baré, Aaron Meurer 3	Conformal-Maps: Code for interactive conformal mapping with SymPy — Hello Aaron, Thank you for the reply and the feedback on my Scipy talk. 1.) In ...	9月11日	☆
	Nicolas Guarin, ... Aaron Meurer 3	Solution of nonlinear ODE — Perhaps it would help to set a variable for the initial condition and solve for that. Unfortunately,	9月11日	☆
	Oscar Benjamin, Aaron Meurer 6	SymPy 1.9 release — On Fri, 10 Sept 2021 at 02:02, Aaron Meurer <asmeurer@gmail.com> wrote: > > On Thu, Sep 9	9月10日	☆




# 了解交流途径

- <https://groups.google.com/g/sympy/c/B1jpw-DsNCk>
- 开发者针对这个变更，在邮件列表中进行了激烈的讨论

Q 会话 在“sympy@googlegroups.com”中搜索会话 登录

← ① | □ | 🔒 | <


SymPEP: make MatchPy a SymPy dependency 已查看 23 次

**Francesco Bonazzi**  
收件人: sympy  
2021年10月5日 下午2:48:51 (前天) ☆ 🔒 ⋮

Hi everyone,  
  
I have written a draft for a SymPEP (SymPy enhancement proposal) to include MatchPy as a dependency of SymPy.  
<https://github.com/sympy/SymPEPs/pull/3>  
  
Once SymPy depends on the MatchPy library, the bindings to MatchPy can be moved into SymPy's core.  
  
MatchPy provides a much more powerful pattern matcher than the current one implemented in SymPy's core. In particular:

- it can match multiple patterns at the same time and very efficiently (SymPy's matcher can only process one pattern at a time),
- it can generate a decision tree in Python out of multiple patterns (SymEngine has an implementation to generate a C++ decision tree out of the same patterns).

  
Feel free to join the discussion either here or on the [SymPEP Pull Request](<https://github.com/sympy/SymPEPs/pull/3>)

**Oscar Benjamin**  
收件人: sympy  
2021年10月5日 下午8:07:06 (昨天) ☆ 🔒 ⋮

On Tue, 5 Oct 2021 at 07:48, Francesco Bonazzi <[franz.....@gmail.com](mailto:franz.....@gmail.com)> wrote:  
Hi everyone,  
  
I have written a draft for a SymPEP (SymPy enhancement proposal) to include MatchPy as a dependency of SymPy.  
<https://github.com/sympy/SymPEPs/pull/3>  
  
For those less familiar to github you need to click the "files changed" tab to actually see the text of the SymPEP. A direct link is:  
<https://github.com/sympy/SymPEPs/pull/3/files>  
  
Once SymPy depends on the MatchPy library, the bindings to MatchPy can be moved into SymPy's core.  
  
MatchPy provides a much more powerful pattern matcher than the current one implemented in SymPy's core. In particular:

- it can match multiple patterns at the same time and very efficiently (SymPy's matcher can only process one pattern at a time),
- it can generate a decision tree in Python out of multiple patterns (SymEngine has an implementation to generate a C++ decision tree out of the same patterns).

  
Feel free to join the discussion either here or on the [SymPEP Pull Request](<https://github.com/sympy/SymPEPs/pull/3>)  
  
I think it's best to discuss this here rather than on the PR apart from discussion of minor edits.

# 了解交流途径

- <https://gitter.im/sympy/sympy>
- Gitter则更开放一些，发现bug、使用SymPy有疑问都可以在上面与开发者进行交流

**GITTER**

Where communities thrive

JOIN OVER 1.5M+ PEOPLE  
JOIN OVER 100K+ COMMUNITIES  
FREE WITHOUT LIMITS  
CREATE YOUR OWN COMMUNITY

EXPLORE MORE COMMUNITIES

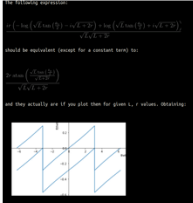
**sympy/sympy** A computer algebra system written in pure Python <http://sympy.org/>. To get started with contributing <https://github.com/sympy/sympy/wiki/Introduction-to-contributing>

<https://github.com/sympy/sympy/wiki/Introduction-to-contributing> has some pointers to help get you started

anutosh491 @anutosh491 Sep 29 21:13  
Hello, I am trying to approach couple of issues involving Sum.doit() but I am not able to understand completely how doit works for a Sum/Integral ( sometimes the recursive call and other times the not so self-explanatory variables like 'rep','did' etc (yeah i know its not possible to write self-explanatory variables always) in the code throw me off and finding it a bit tough to relate as a whole .  
any guidance by someone familiar with doit/concrete module regarding how does doit calculate a basic sum like an infinite geometric series would be great ! Thanks

ThePauliPrinciple @ThePauliPrinciple Oct 04 19:08  
Just wanted to point out that I wrote some ideas/examples in <https://github.com/sympy/sympy/discussions/22219> looking forward to any feedback

ThePauliPrinciple @ThePauliPrinciple Oct 04 21:18  
Thanks for the reply @oscarbenjamin !

falemattte @falemattte Oct 04 22:28  
  
I think that I found a bug on the evaluation of the limits of a function that I summarize in this pic. Any tips? I can also provide the code to reproduce it.  
Of course L and r are symbols positive defined

falemattte @falemattte Oct 04 22:36  
I have opened an Issue here, please contribute [sympy/sympy#22220](https://github.com/sympy/sympy/issues/22220)  
The limit is different in the discontinuity points.

ThePauliPrinciple @ThePauliPrinciple Oct 05 00:36  
I am looking to setup a workflow to work on a pull request. In particular, I am looking for some way to be able to edit the library and then immediately check manually/interactively if I obtained the intended result. For example, to have a conda environment which uses the fork as the source for sympy. Any ideas? I have read through the development workflow document, but I feel I'm missing the point on how to do this effectively.

anonbox.netuser @anonbox.netuser:matrix.org [m] Oct 05 12:05  
Hi, is sympy 1.9 officially released? I saw it is tagged on github, but the usual files for downloading are missing and pypi also only lists 1.9rc1 as latest version. The sympy.org website is also not helpful in this regard, showing the release of 1.7.1 as latest news.

**PEOPLE** **REPO INFO**


SEE ALL (3184 PEOPLE)

**ACTIVITY**

- smichr on enhanced-Interval (compare) 22:42
- smichr on smichr-patch-1 (compare) 22:42
- smichr closed #22207 22:42
- smichr reopened #22207 22:38
- oscargus commented #22193 21:27
- anutosh491 synchronize #22230 21:02
- sympy-bot commented #22231 20:50
- oscargus opened #22231 20:50
- oscargus labeled #22231 20:50
- anutosh491 synchronize #22193 20:47
- github-actions[bot] commented #22230 20:43
- anutosh491 synchronize #22230 20:42
- anutosh491 synchronize #22193 20:32

# 了解交流途径

- 发现bug

 **falematte @falematte** Oct 04 22:28

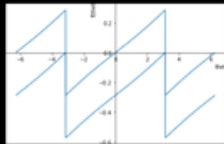
The following expression:

$$\frac{r \left( -\log \left( \sqrt{L} \tan \left( \frac{\pi}{4} \right) - i \sqrt{L+2r} \right) + \log \left( \sqrt{L} \tan \left( \frac{\pi}{4} \right) + i \sqrt{L+2r} \right) \right)}{\sqrt{L} \sqrt{L+2r}}$$

should be equivalent (except for a constant term) to:

$$2r \arctan \left( \frac{\sqrt{L} \tan \left( \frac{\pi}{4} \right)}{\sqrt{L+2r}} \right)$$


and they actually are if you plot them for given  $L, r$  values. Obtaining:



taking the right and left limit of the first expression we obtain a wrong result, while the second expression is evaluated fine. why?

I think that I found a bug on the evaluation of the limits of a function that I summarize in this pic. Any tips? I can also provide the code to reproduce it.


Of course  $L$  and  $r$  are symbols positive defined

 **falematte @falematte** Oct 04 22:36

I have opened an Issue here, please contribute [sympy/sympy#22220](https://github.com/sympy/sympy/issues/22220)

The limit is different in the discontinuity points.

- 询问问题

 **ThePauliPrinciple @ThePauliPrinciple** Sep 27 22:19

```
from sympy import IndexedBase, symbols, Idx, Derivative
X = IndexedBase('X')
D = IndexedBase('D')
i = symbols('i', cls=Idx)
Derivative(X[i]*X[i], D[i])
```

Is there some way to tell sympy that  $X$  is a function of  $D$ ?

# 如何做贡献

- 定位做什么
  - 如，从简单的“Easy to fix” issue入手等
  - 如，从newbie视角帮助填补入门手册
- 定位需要询问/沟通的社区对象
- 知会community我开始贡献
  - 占位issue，不然waste of effort
- 跟社区沟通和迭代
  - 告知: I'm newbie, this is the first time I contribute to OSS

End