



Introduction to Free and Open Source Software

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What is Free (Libre) Software?

“Free software” means software that respects users' freedom and community. Roughly, it means that **the users have the freedom to run, copy, distribute, study, change and improve the software**.

A program is free software if the program's users have the four essential freedoms: [\[1\]](#)

- ❑ The freedom to run the program as you wish, for any purpose (freedom 0).
- ❑ The freedom to study how the program works, and change it so it does your computing as you wish (freedom 1). Access to the source code is a precondition for this.
- ❑ The freedom to redistribute copies so you can help others (freedom 2).
- ❑ The freedom to distribute copies of your modified versions to others (freedom 3). By doing this you can give the whole community a chance to benefit from your changes. Access to the source code is a precondition for this.

Source: <https://www.gnu.org/philosophy/free-sw.html>

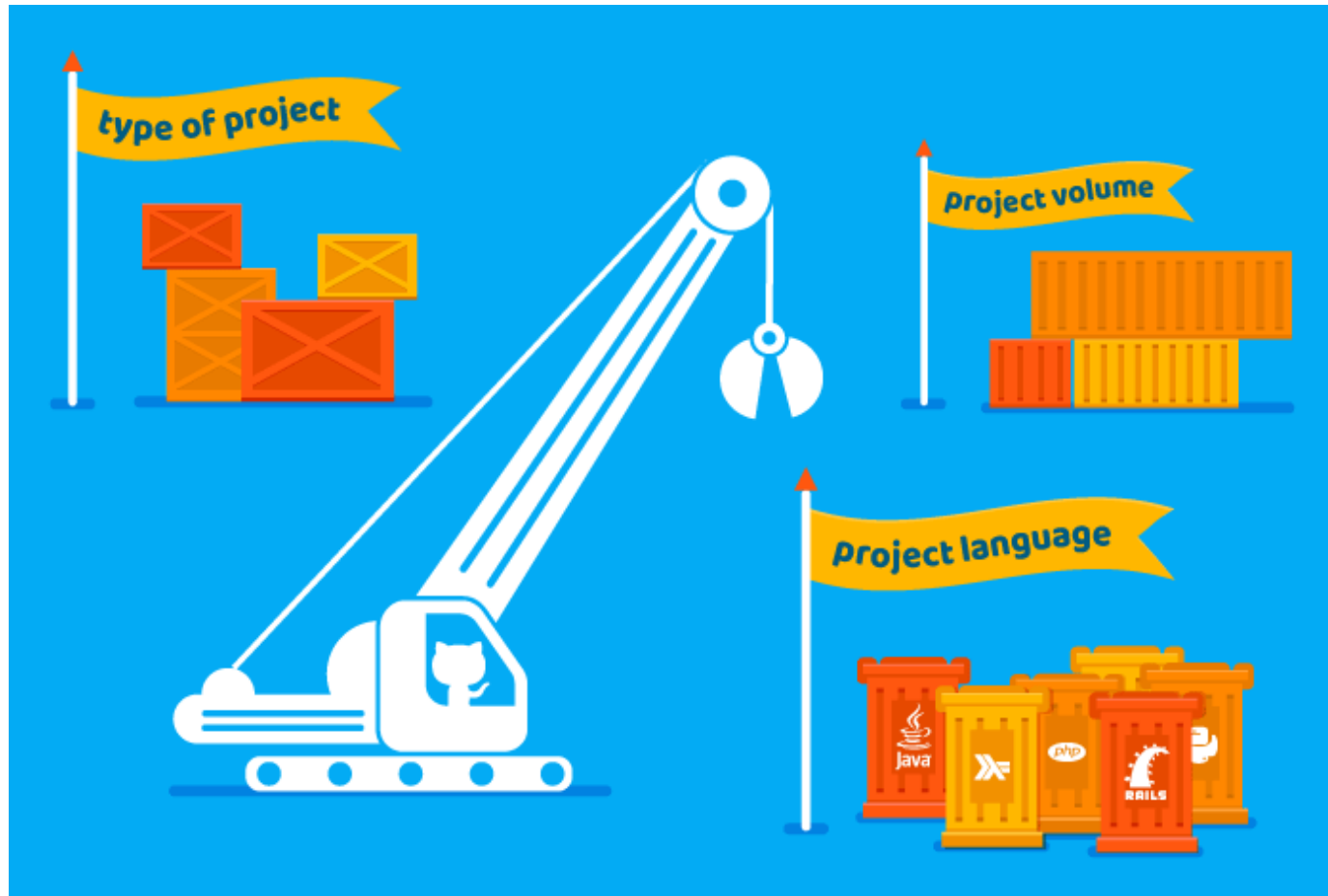
What is Open Source Software?

Open source doesn't just mean access to the source code. The distribution terms of open-source software must comply with the following criteria:

1. Free Redistribution
2. Source Code
3. Derived Works
4. Integrity of The Author's Source Code
5. No Discrimination Against Persons or Groups
6. No Discrimination Against Fields of Endeavor
7. Distribution of License
8. License Must Not Be Specific to a Product
9. License Must Not Restrict Other Software
10. License Must Be Technology-Neutral

Source: <https://opensource.org/docs/osd>

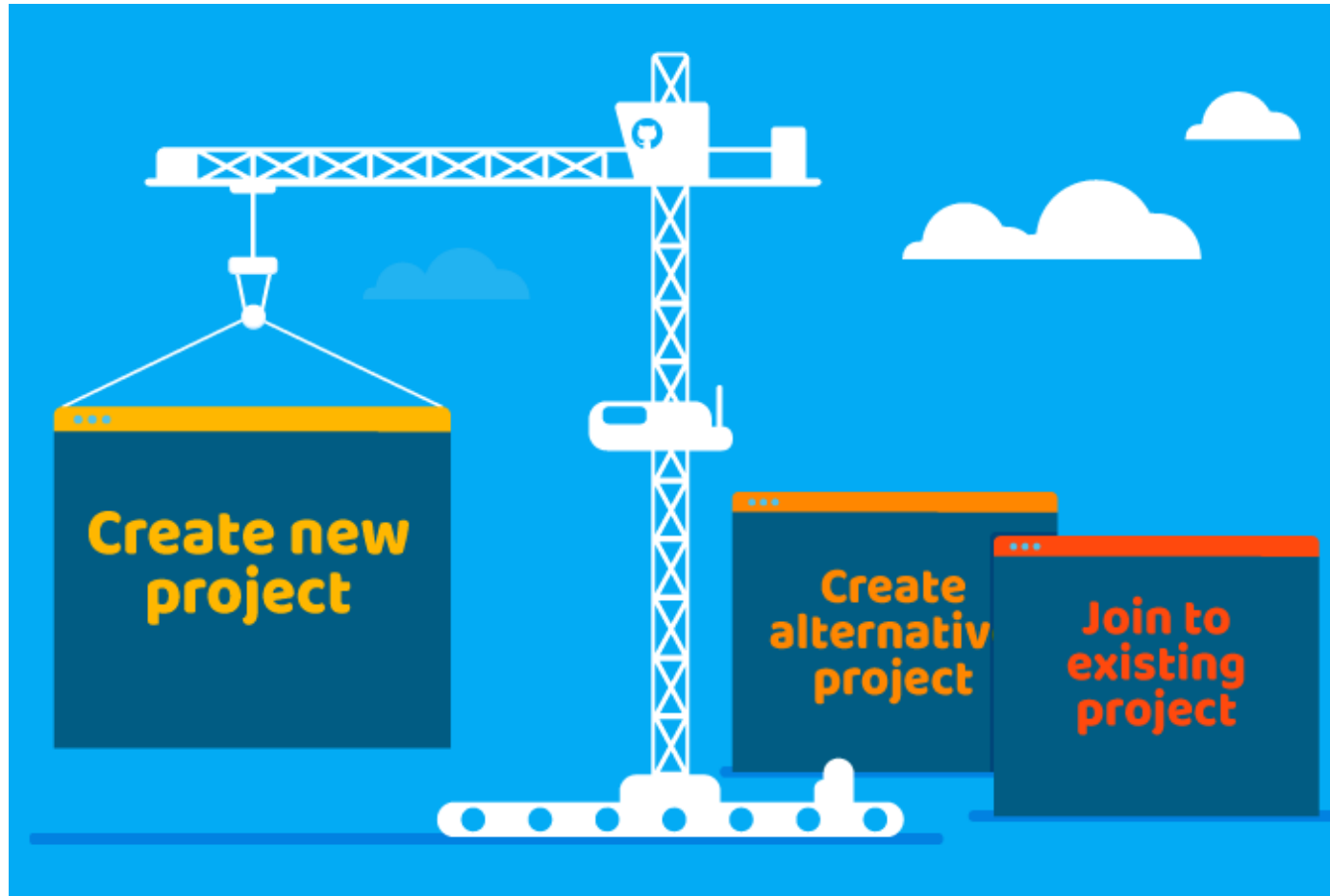
Before you start



Source:

<https://rubygarage.org/blog/how-contribute-to-open-source-projects>

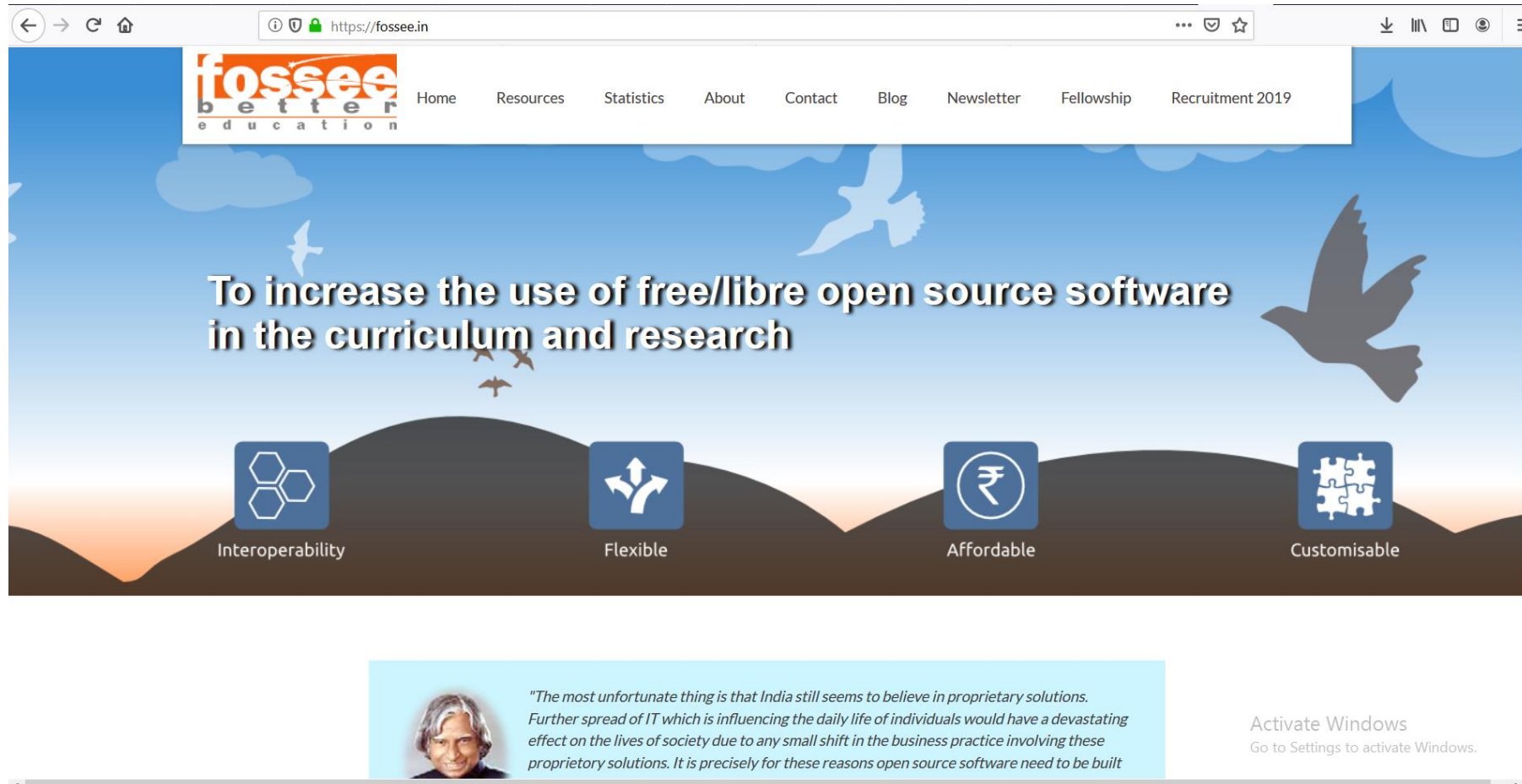
Ways to contribute to open source projects




Source:

<https://rubygarage.org/blog/how-contribute-to-open-source-projects>

FOSSEE Project, IIT Bombay



Outreachy

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The initial application period for the December 2019 to March 2020 round is now open! [Apply today](#).

Please [read about our application process](#) and [see our list of internship projects](#).


[Sign up for the Outreachy announcements mailing list](#) to receive notifications of upcoming application rounds and application deadlines.

Communities interested in mentoring Outreachy interns should [sign up to mentor through the community CFP process](#).

Outreachy provides internships to work in Free and Open Source Software (FOSS). Outreachy internships are open to applicants around the world. Interns work remotely, and are not required to move. Interns are paid a stipend of \$5,500 USD for the three month internship. Interns have a \$500 USD travel stipend to attend conferences or events.

Interns work with experienced mentors from FOSS communities. Outreachy internship projects may include programming, user experience, documentation, illustration, graphical design, or data science. Interns often find employment after their internship with Outreachy sponsors or in jobs that use the skills they learned during their internship.

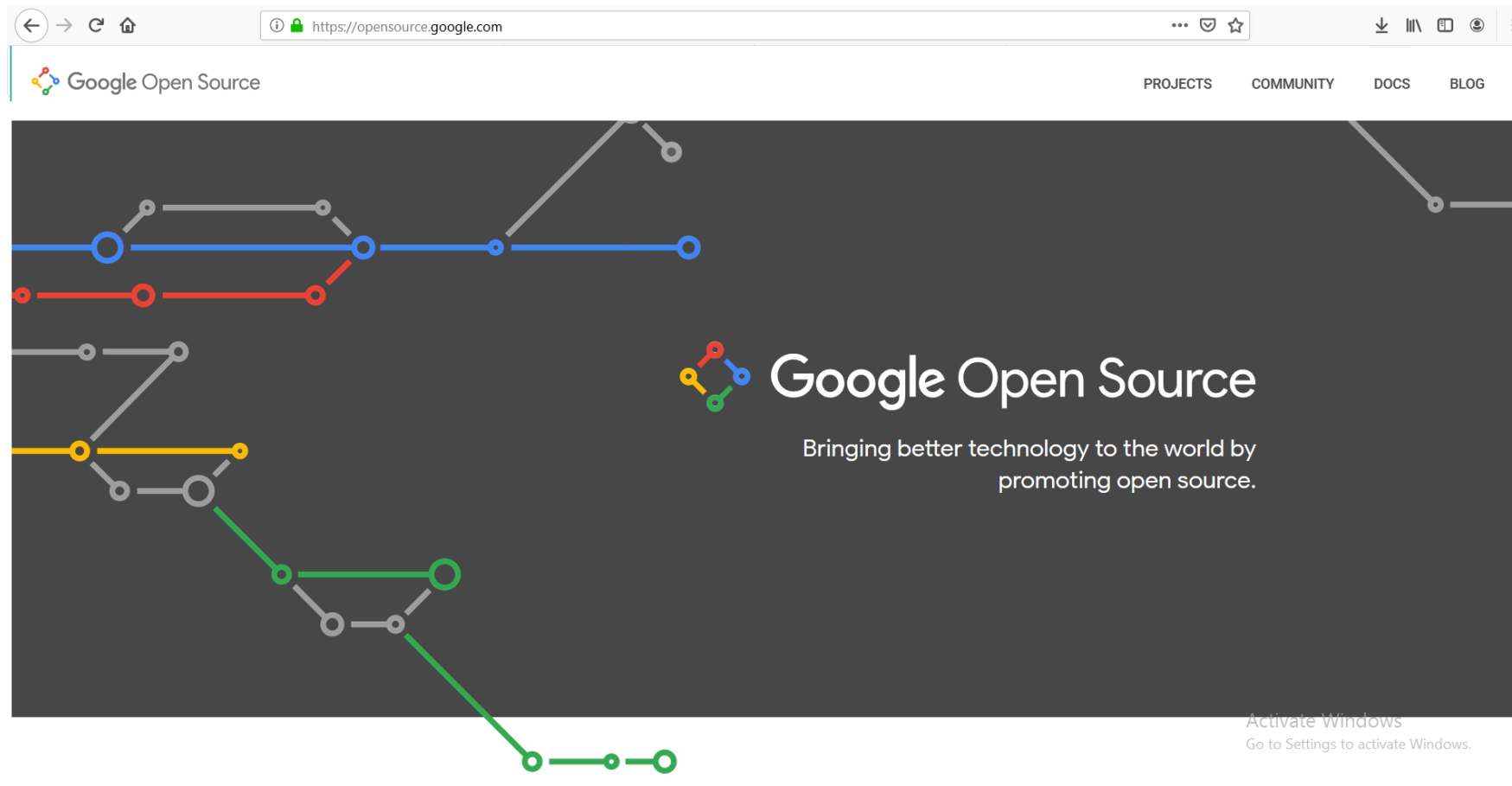
We expressly invite women (both cis and trans), trans men, and genderqueer people to apply. We also expressly invite applications from residents and nationals of the United States of any gender who are Black/African American, Hispanic/Latin@, Native American/American Indian, Alaska Native, Native Hawaiian, or Pacific Islander. Anyone who faces under-representation, systemic bias, or discrimination in the technology industry of their country is invited to apply.



Activate Windows

Go to Settings to activate Windows.

Google Open Source



Microsoft Open Source

The screenshot shows the Microsoft Open Source website interface. At the top, there's a navigation bar with the Microsoft logo, "Microsoft Open Source", "Explore", "About", and a "Sign in" link. Below this, the main heading is "Contribute to Microsoft open source projects". A subtext reads: "Whether you're a seasoned open source developer or looking to make your first ever open source contribution Microsoft has many open source projects seeking new contributors. **All issues below need your help!**".

On the left side, there are filter sections:

- Filter**
- Languages**
 - ☐ C#
 - ☐ PowerShell
 - ☐ TypeScript
 - ☐ JavaScript
 - ☐ C++
 - [Show more](#)
- Project activity**
 - ☐ Last week
 - ☐ Last month
 - ☐ Last year
- Number of stars**
 - Min: [input type="text"]
 - Max: [input type="text"]
- Number of forks**
 - Min: [input type="text"]
 - Max: [input type="text"]

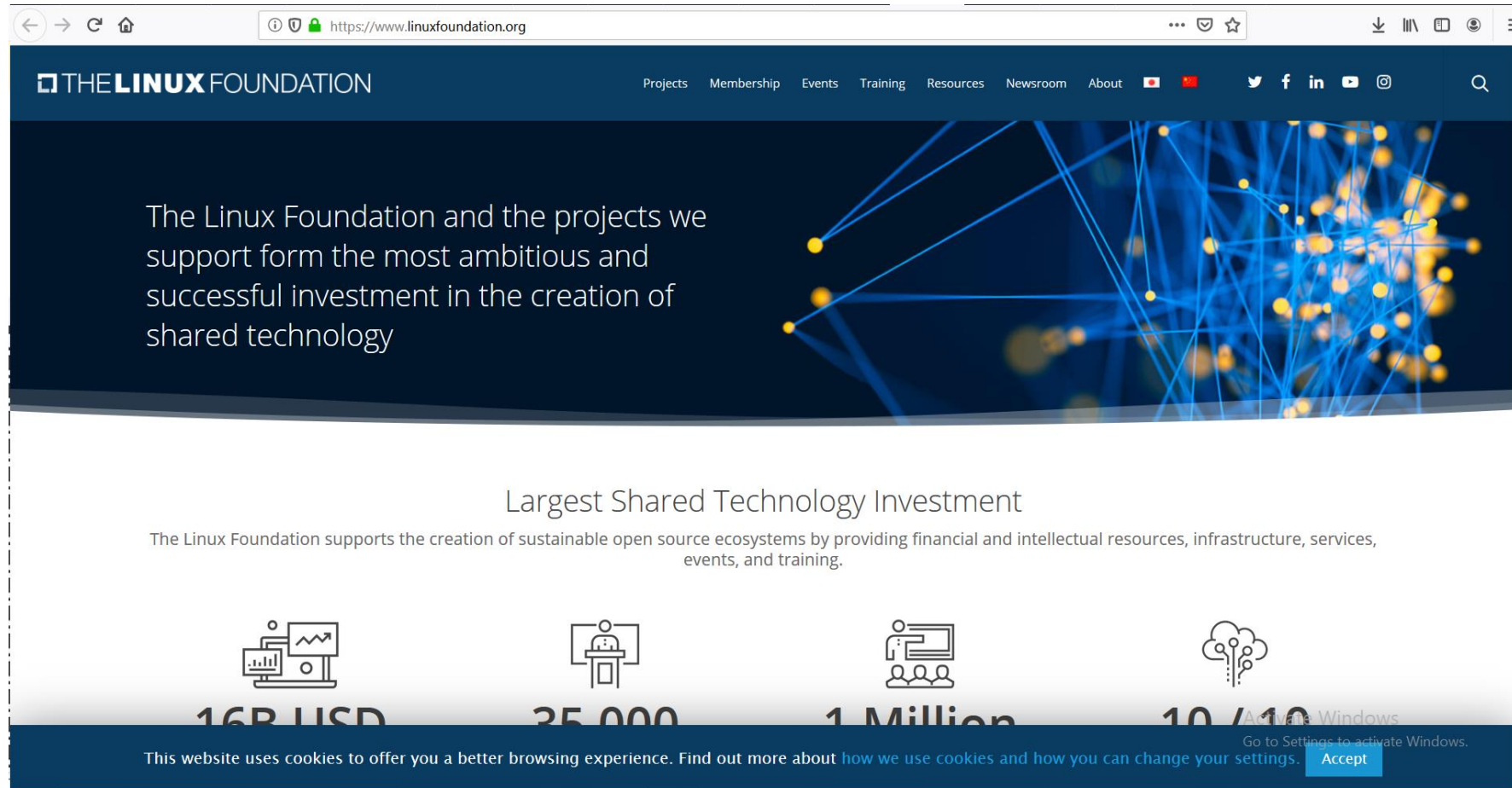
On the right, there's a search bar: "Filter projects by name, description, topics or issue title". Below it, two project cards are visible:

- Azure/azure-functions-core-tools** (C#)
 - Command line tools for Azure Functions
 - ★ 436 | 🍴 150 | Last active: 9/19/2019
 - azure-functions
- dotnet/sourcelink** (C#)
 - Source Link enables a great source debugging experience for your users, by adding source control metadata to your built assets
 - ★ 462 | 🍴 44 | Last active: 9/19/2019
 - Implement support for Subversion
 - Implement support for Mercurial repos and providers
 - Add integration tests that covers error reported when multiple source control packages are referenced **Good first issue**
 - Update integration tests to cover EmbedUntrackedFiles **Good first issue**
 - Add integration test to cover repositories with submodules **Good first issue**

At the bottom right, there's a Windows watermark: "Windows Go to Settings to activate Windows."

The Windows taskbar at the bottom shows the search bar "Search the web and Windows", several application icons (Edge, File Explorer, etc.), and the system clock "8:19 AM 9/20/2019".

The Linux Foundation



The screenshot shows the Linux Foundation website. The browser address bar displays 'https://www.linuxfoundation.org'. The website header includes the logo 'THE LINUX FOUNDATION' and a navigation menu with links: Projects, Membership, Events, Training, Resources, Newsroom, and About. Social media icons for Twitter, Facebook, LinkedIn, YouTube, and Instagram are also present. The main banner features a dark blue background with a network of glowing yellow nodes connected by blue lines. The text on the banner reads: 'The Linux Foundation and the projects we support form the most ambitious and successful investment in the creation of shared technology'. Below the banner, a section titled 'Largest Shared Technology Investment' states: 'The Linux Foundation supports the creation of sustainable open source ecosystems by providing financial and intellectual resources, infrastructure, services, events, and training.' This section includes four icons and corresponding statistics: a computer icon for '16B USD', a podium icon for '35,000', a group of people icon for '1 Million', and a cloud icon for '10 / 10'. A footer at the bottom contains a cookie notice: 'This website uses cookies to offer you a better browsing experience. Find out more about how we use cookies and how you can change your settings.' with an 'Accept' button. A Windows activation watermark is visible in the bottom right corner.

THE LINUX FOUNDATION

Projects Membership Events Training Resources Newsroom About

The Linux Foundation and the projects we support form the most ambitious and successful investment in the creation of shared technology

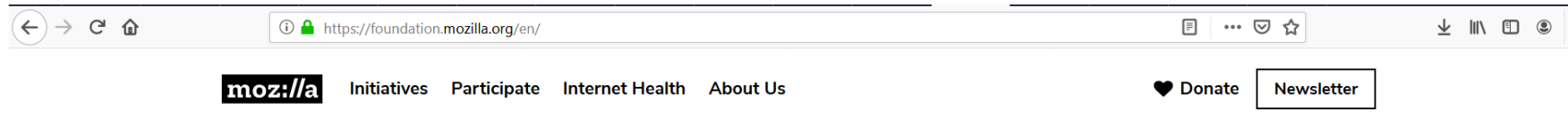
Largest Shared Technology Investment

The Linux Foundation supports the creation of sustainable open source ecosystems by providing financial and intellectual resources, infrastructure, services, events, and training.

16B USD 35,000 1 Million 10 / 10

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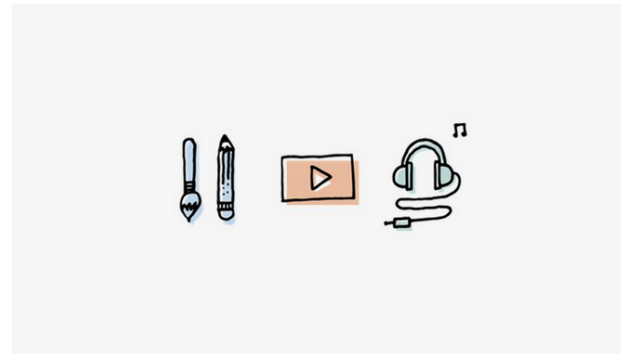
Mozilla Foundation



Announcing 'Grant for the Web'

Coil, Mozilla, and Creative Commons have launched [Grant for the Web](#), an ambitious initiative to empower individual creators and galvanize an alternative business model for online content

[Learn more](#)



Latest news



ADVOCACY

Answers to Your Questions About the Dark Side of the Internet

by Mozilla on September 3, 2019

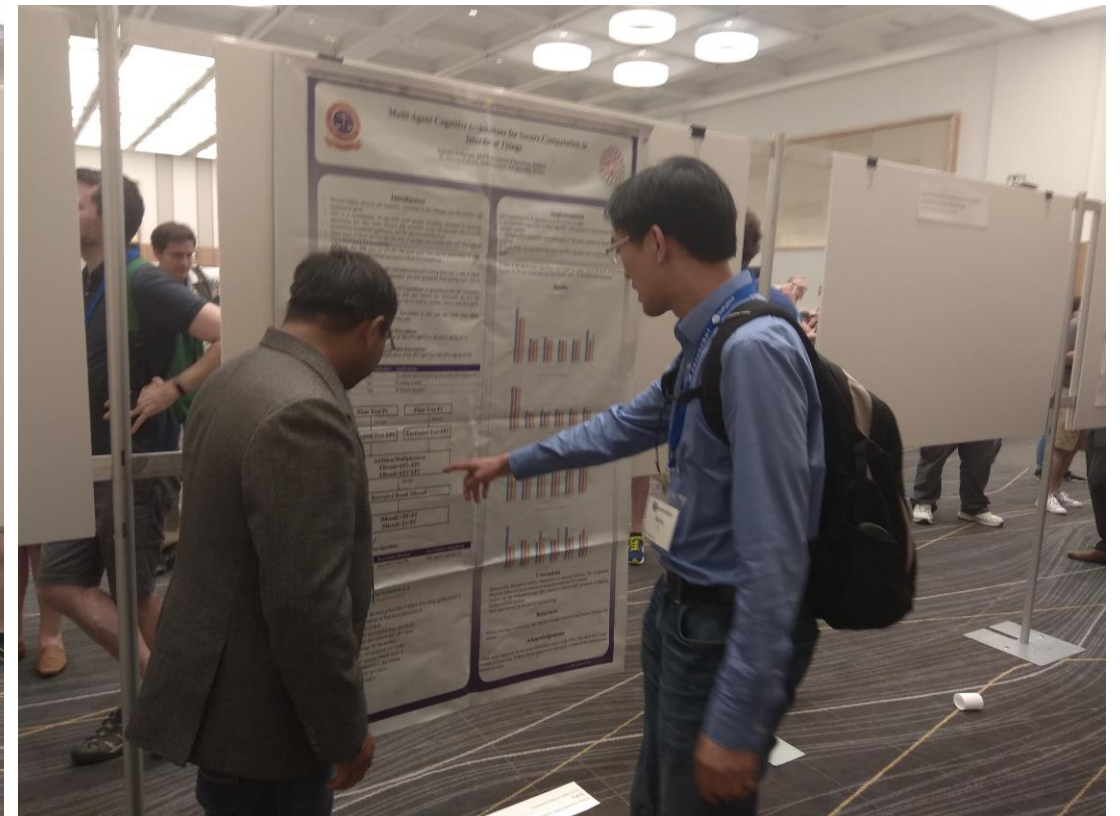
The anonymous mother and son from this important article in the [Go to Settings to activate Windows](#). Washingtonian, What Happened After My Son Joined the Alt-Right, agreed

Activate Windows

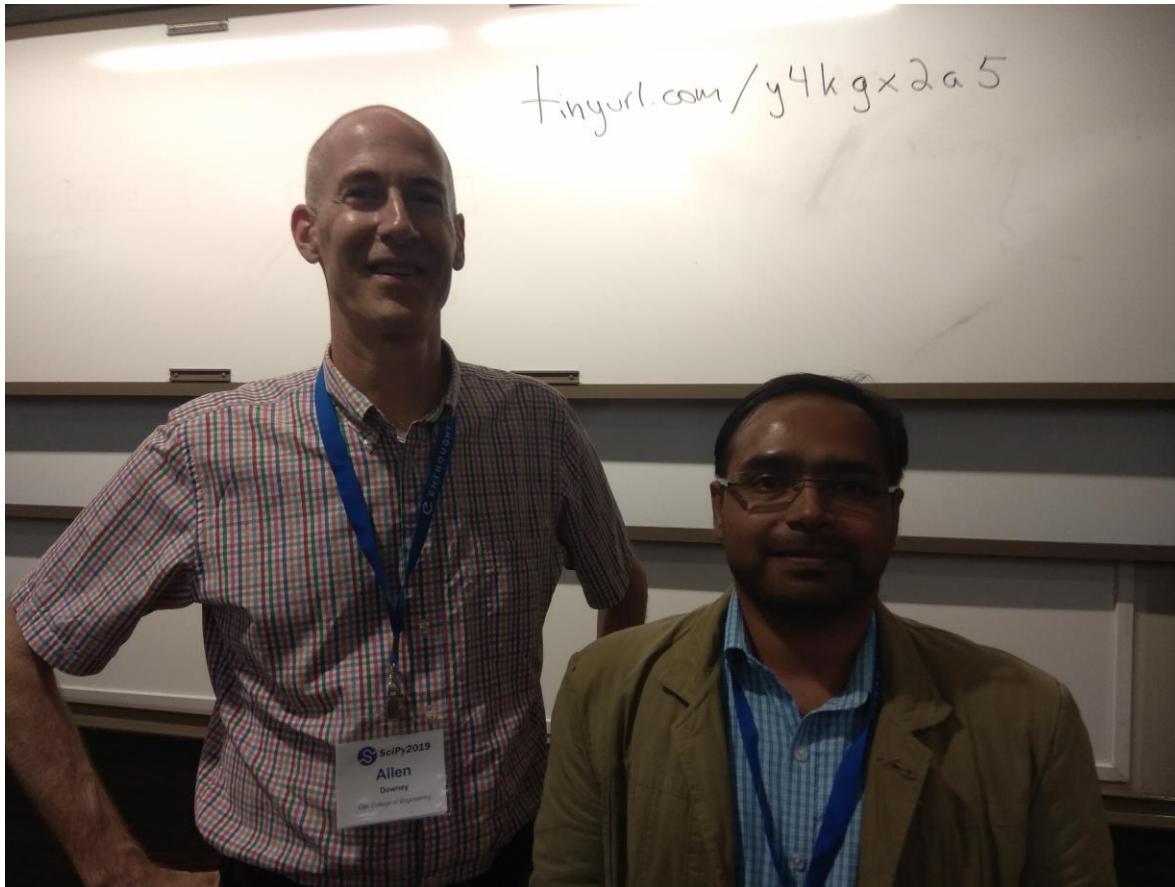
Scipy 2019



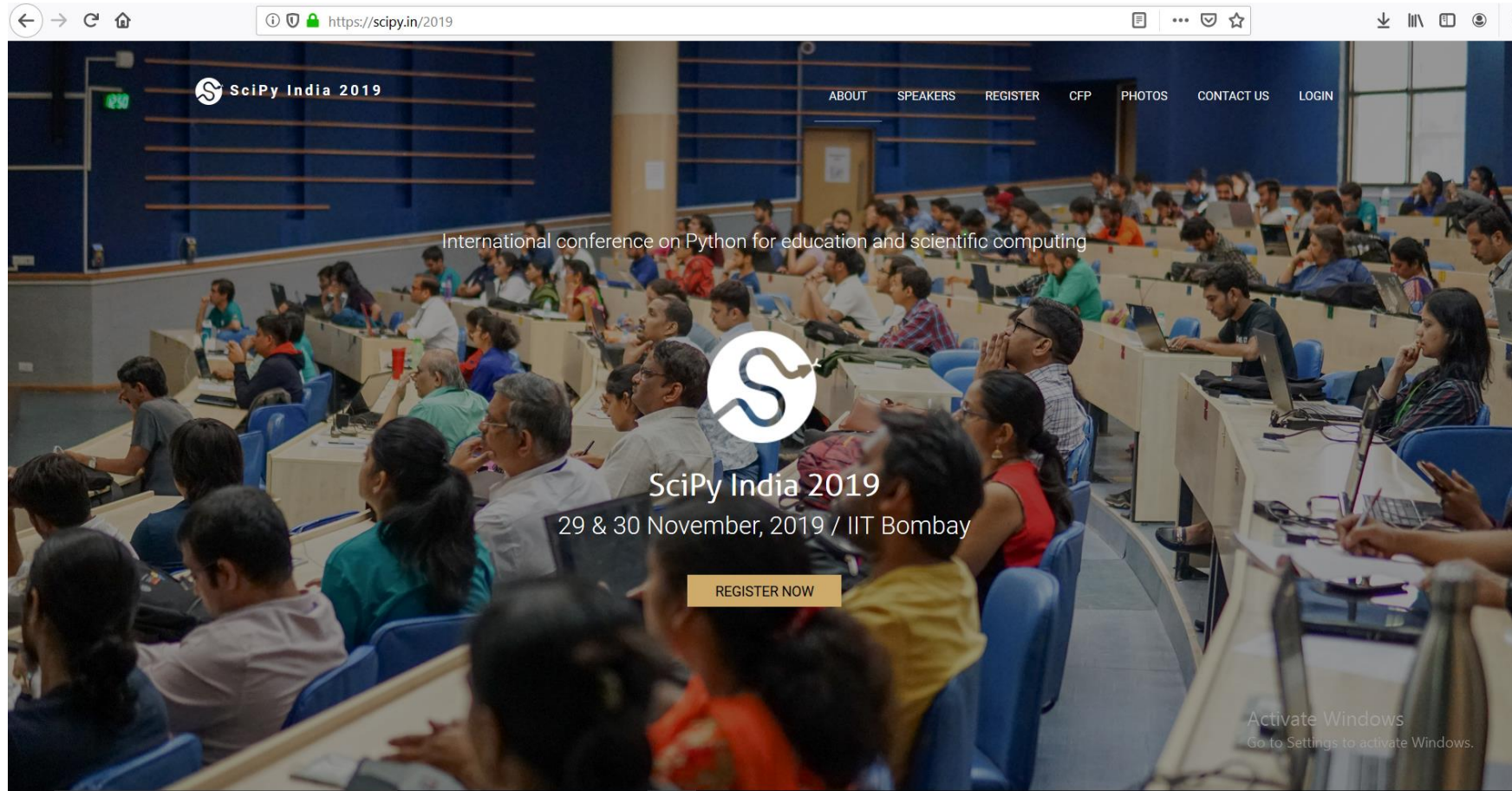
@Scipy 2019, Texas, USA



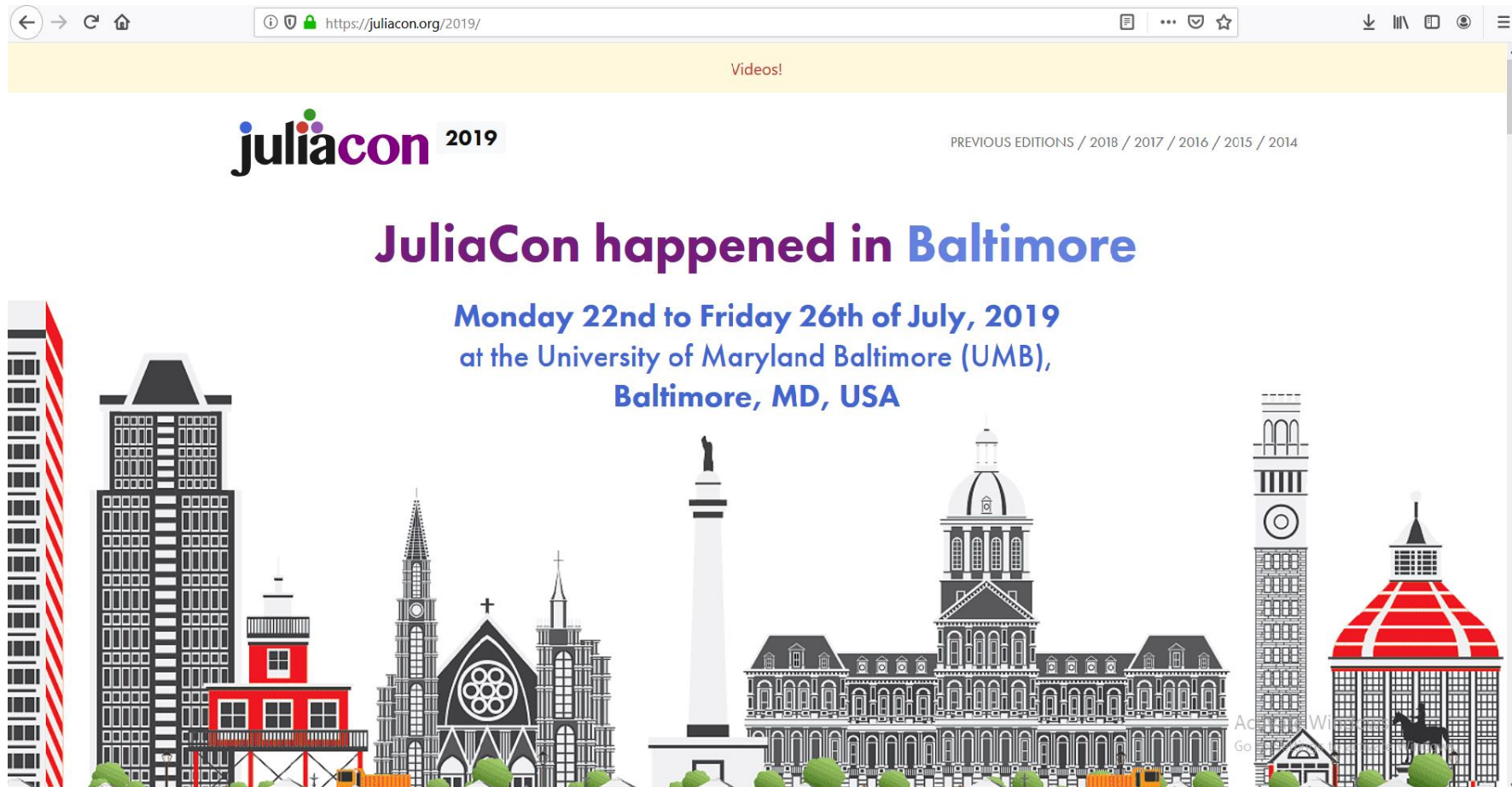
@Scipy 2019, Texas, USA



Scipy India 2019



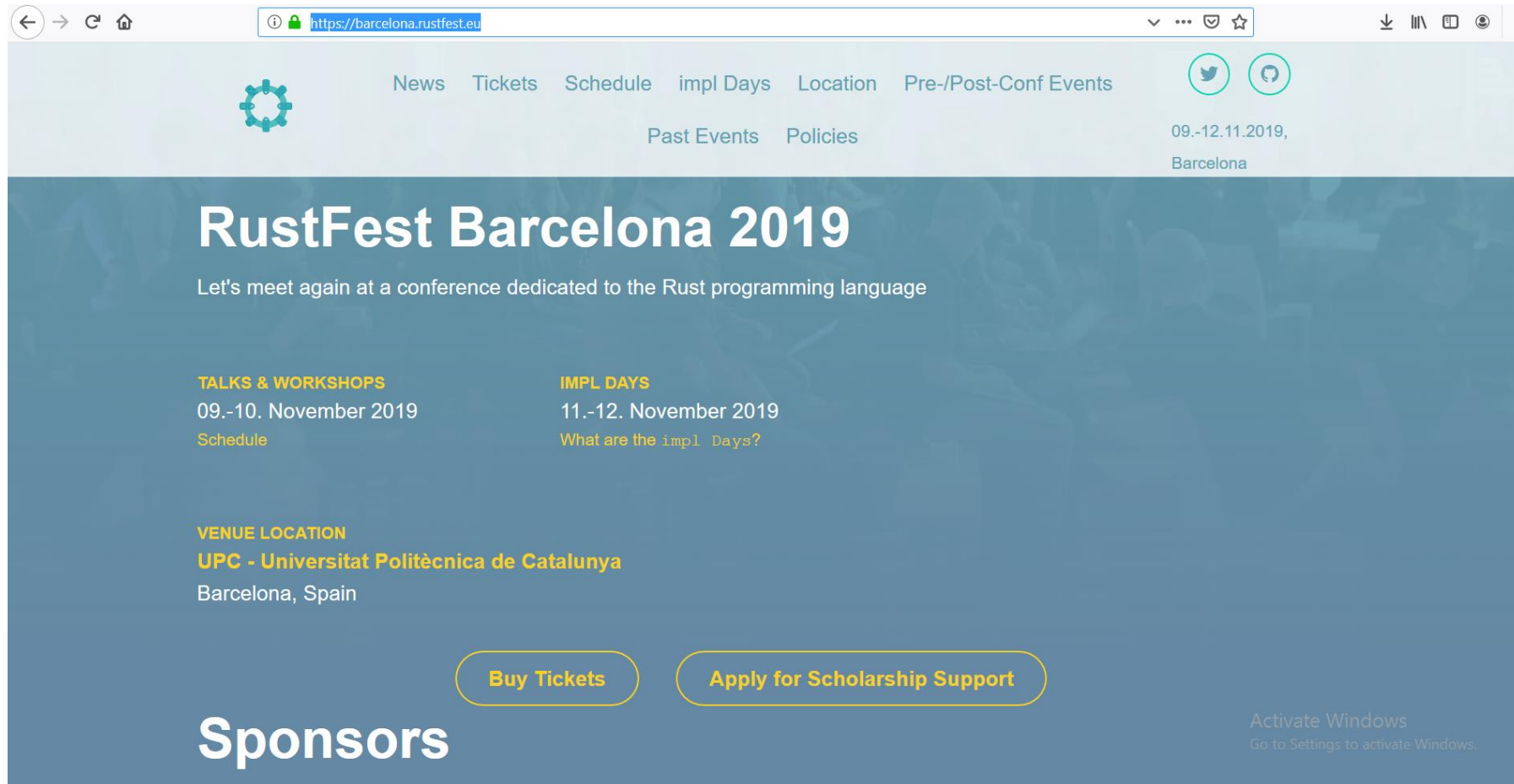
JuliaCon 2019, USA



@JuliaCon 2018, London, UK



RustFest



The screenshot shows the website for RustFest Barcelona 2019. The browser's address bar displays the URL <https://barcelona.rustfest.eu>. The website's header includes a navigation menu with links for News, Tickets, Schedule, impl Days, Location, and Pre-/Post-Conf Events. There are also social media icons for Twitter and GitHub, and a date/location indicator for 09.-12.11.2019, Barcelona. The main content area features a large title "RustFest Barcelona 2019" and a subtitle "Let's meet again at a conference dedicated to the Rust programming language". Below this, there are two columns of information: "TALKS & WORKSHOPS" for 09.-10. November 2019 with a "Schedule" link, and "IMPL DAYS" for 11.-12. November 2019 with a link "What are the impl Days?". A "VENUE LOCATION" section specifies "UPC - Universitat Politècnica de Catalunya" in Barcelona, Spain. At the bottom, there are two buttons: "Buy Tickets" and "Apply for Scholarship Support". The word "Sponsors" is partially visible at the bottom left. A Windows watermark is present in the bottom right corner.

News Tickets Schedule impl Days Location Pre-/Post-Conf Events

Past Events Policies

09.-12.11.2019,
Barcelona

RustFest Barcelona 2019

Let's meet again at a conference dedicated to the Rust programming language

TALKS & WORKSHOPS
09.-10. November 2019
[Schedule](#)

IMPL DAYS
11.-12. November 2019
[What are the impl Days?](#)

VENUE LOCATION
UPC - Universitat Politècnica de Catalunya
Barcelona, Spain

[Buy Tickets](#) [Apply for Scholarship Support](#)

Sponsors

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Python Software Foundation



The screenshot shows the Python Software Foundation website in a web browser. The browser's address bar displays the URL <https://www.python.org/psf/>. The website's navigation bar includes links for Python, PSF, Docs, PyPI, Jobs, and Community. Below this, a dark blue banner features the Python logo, the text "python SOFTWARE FOUNDATION", a yellow "Donate" button, a search bar with a "GO" button, and links for "Socialize" and "Sign In". A secondary navigation bar contains links for About, Sponsorship, Membership, Donations, Grants, Legal, Media, and PSF Blog.

The PSF
The Python Software Foundation is the organization behind Python. Become a member of the PSF and help advance the software and our mission.

[Tweets by @ThePSF](#)

Python Software Foundation



The mission of the Python Software Foundation is to promote, protect, and advance the Python programming language, and to support and facilitate the growth of a [diverse](#) and international community of Python programmers.

—from the [Mission Statement page](#)

The Python Software Foundation (PSF) is a 501(c)(3) non-profit corporation that holds the intellectual property rights behind the Python programming language. We manage the open source licensing for Python version 2.1 and later and own and protect the trademarks associated with Python. We also run the North American [PyCon](#) conference annually, support other Python conferences around the world, and fund Python related development with our [grants](#)


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pyladies



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WELCOME!



We are an international mentorship group with a focus on helping more women become active participants and leaders in the Python open-source community. Our mission is to promote, educate and advance a diverse Python community through outreach, education, conferences, events and social gatherings.

PyLadies also aims to provide a friendly support network for women and a bridge to the larger Python world. Anyone with an interest in Python is encouraged to participate!

LATEST BLOG POSTS

IMPORTANT PYLADIES UPDATE

Keep up with what's going in the PyLadies community on our low-volume announcement list. Men and women from everywhere are welcome. Unsubscribe anytime.

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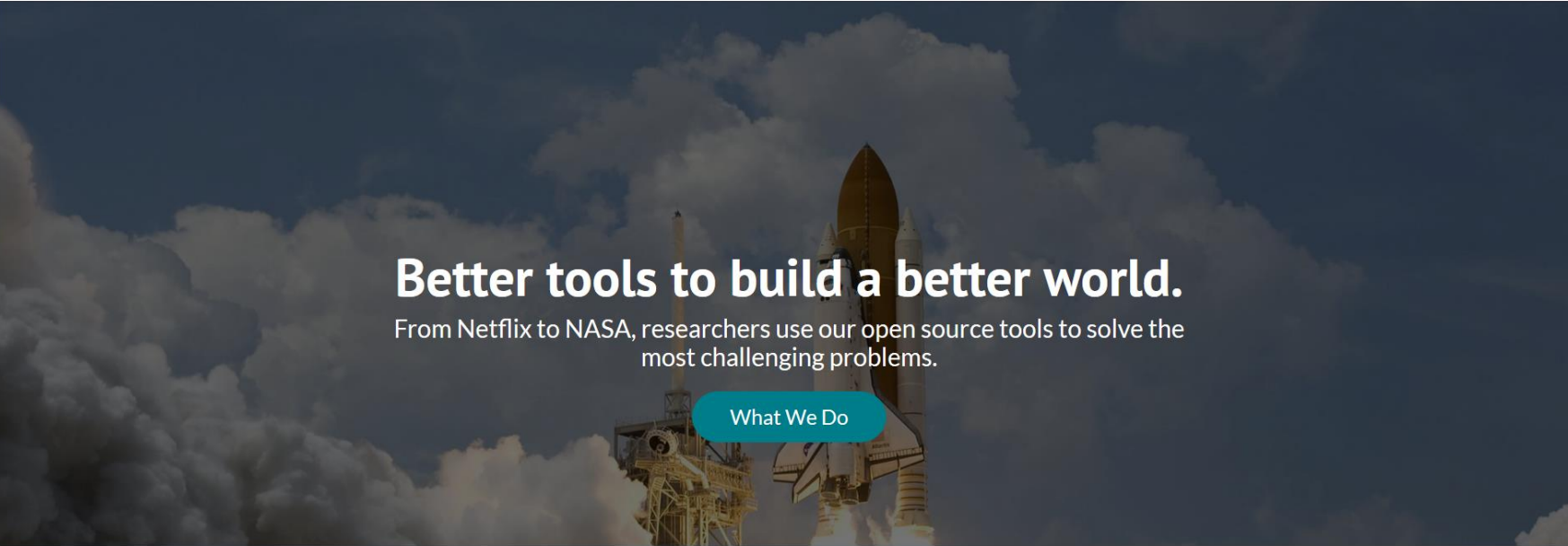








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Journal of Open Source Software

The screenshot shows the homepage of the Journal of Open Source Software (JOSS). The browser address bar displays <https://joss.theoj.org>. The page features a navigation bar with links for About, Papers, Docs, Blog, Submit, and a green button for Log in with ORCID. The main content area includes a description of the journal as a developer-friendly, open access journal for research software packages, committed to publishing quality research software with zero article processing charges or subscription fees. Two prominent buttons are visible: Submit a paper to JOSS and Volunteer to review. On the right side, there are links for Explore Papers, Documentation, and Learn More. At the bottom, a section titled Recently Published Papers shows a paper published about 5 hours ago, titled 'Computing diffusion coefficients in macromolecular simulations: the Diffusion Coefficient Tool for VMD', with a DOI of 10.21105/jcss.01698. A Windows watermark is visible in the bottom right corner.

The Journal of Open Source Software is a developer friendly, open access journal for research software packages.

Committed to publishing quality research software with zero article processing charges or subscription fees.

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Recently Published Papers 694

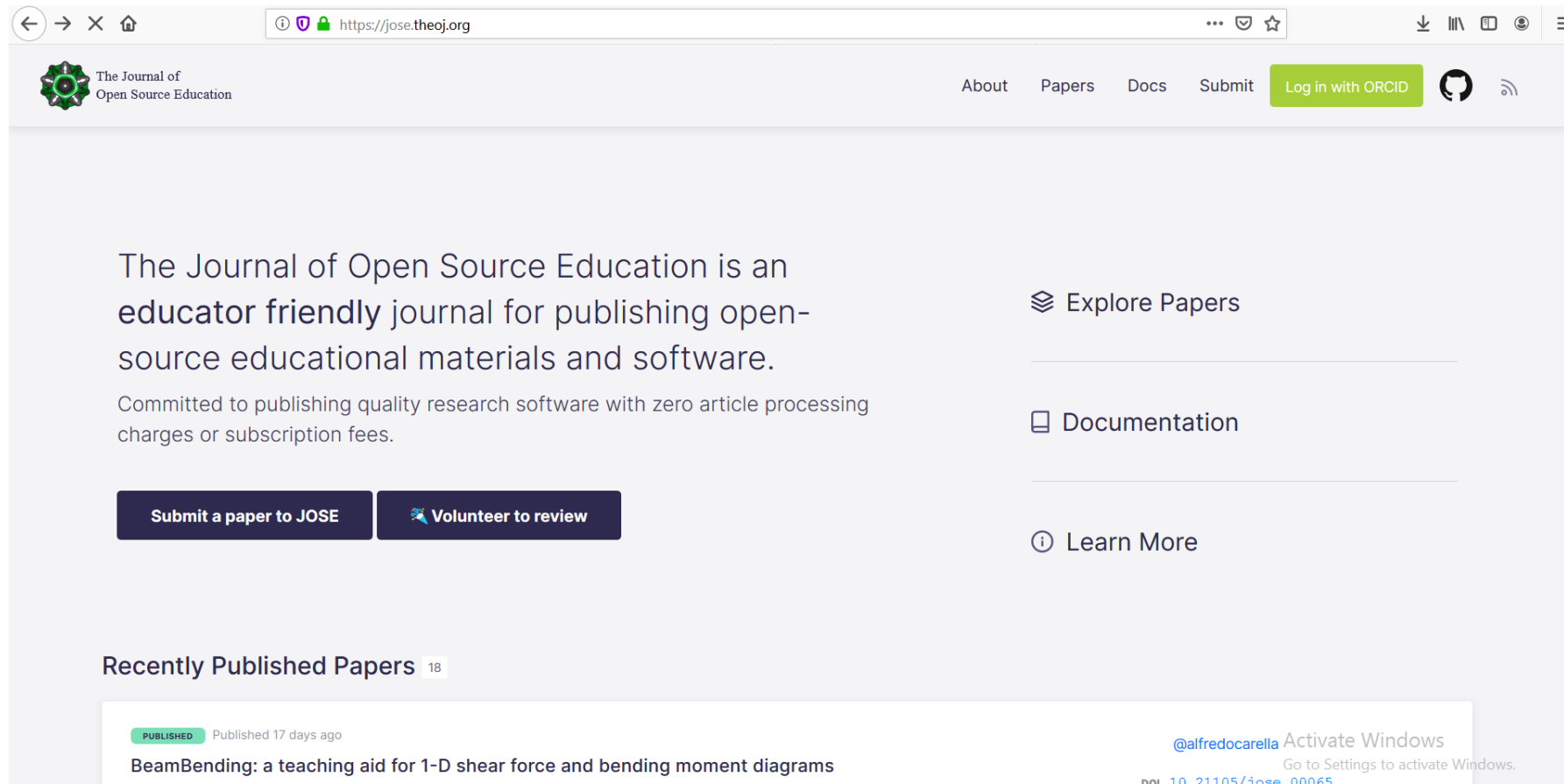
PUBLISHED Published about 5 hours ago

Computing diffusion coefficients in macromolecular simulations: the Diffusion Coefficient Tool for VMD

DOI [10.21105/jcss.01698](https://doi.org/10.21105/jcss.01698)

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Journal of Open Source Education



The screenshot shows the homepage of the Journal of Open Source Education (JOSE). The browser address bar displays the URL <https://jose.theoj.org>. The website header includes the JOSE logo, navigation links for 'About', 'Papers', 'Docs', and 'Submit', a 'Log in with ORCID' button, and icons for GitHub and RSS. The main content area features a descriptive paragraph about the journal, two call-to-action buttons ('Submit a paper to JOSE' and 'Volunteer to review'), and a list of navigation links ('Explore Papers', 'Documentation', 'Learn More'). At the bottom, there is a section for 'Recently Published Papers' with a count of 18, and a featured paper entry titled 'BeamBending: a teaching aid for 1-D shear force and bending moment diagrams'.

The Journal of Open Source Education is an educator friendly journal for publishing open-source educational materials and software.

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Recently Published Papers 18

PUBLISHED Published 17 days ago

BeamBending: a teaching aid for 1-D shear force and bending moment diagrams

[@alfredocarella](#) **Activate Windows**
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DOI [10.21105/jose.00065](https://doi.org/10.21105/jose.00065)

Journal of Brief Ideas

←

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
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"OCD, radicals and TRPA1 receptors".

Further to NPBR .1. and Journal of Brief Ideas papers on "Oxidative stress, MAOIs and OCD" and "OCD, St John's Wort

Gajendra Deshpande · [Sign out](#)

Voting

Click on the  icon to vote on an idea.

You can't vote on your own ideas.

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Linkedin: <https://www.linkedin.com/in/gajendradeshpande/>