

# SciPost

## *Genuine Open Access Publishing*

*Open Access Week @ CERN, 27 October 2022*

**Jean-Sébastien Caux**

*Institute of Physics  
University of Amsterdam*



# Plan of the talk

- SciPost
- Best practices
- Infrastructure
- SciPost and CERN

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## Summary?

- Openness
- Quality

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- Reform impact assessment

## Journals

- SciPost Physics
- SciPost Physics Core
- SP Lecture Notes
- SP Proceedings
- SP Codebases

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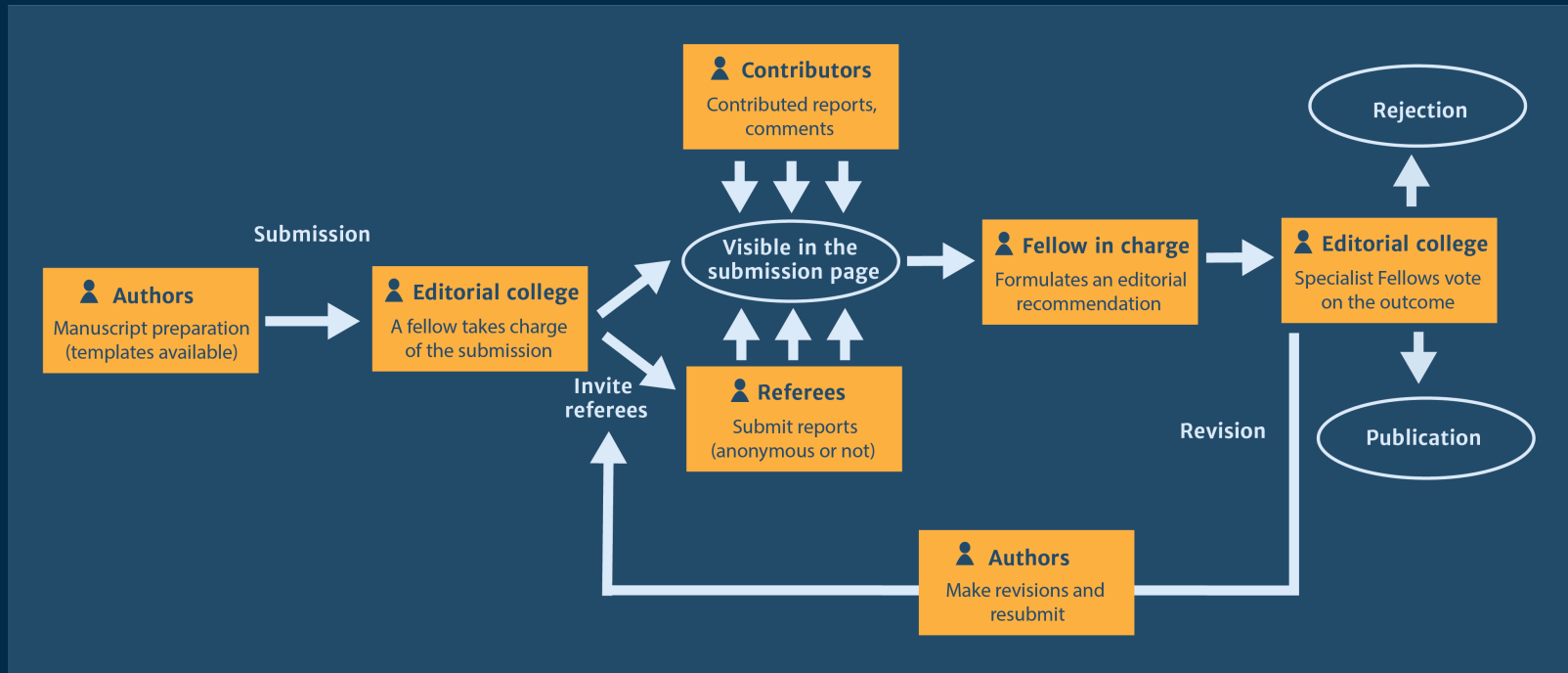
- SciPost Physics
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# Best practice examples

- Peer-witnessed refereeing
- Cost-slashing consortial business model
- Community-driven
- Open infrastructure



## Editorial workflow



# Sci|Post **New format: Codebases**

*Quality-oriented publication venue  
for codes and algorithms*

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## **Publication formats**

- User guide
- Codebase release  
[git repo]

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## Features

- refereed
- citable
- Bundles: guides  
and releases linked

### SciPost Physics Codebases

[Home](#)
[Authoring](#)
[Refereeing](#)
[Submit a manuscript](#)
[About](#)

## Codebase release 1.0 for BlockGen

Enrico Bothmann, Walter Giele, Stefan Hoeche, Joshua Isaacson, Max Knobbe

SciPost Phys. Codebases 3–r1.0 (2022) · published 23 August 2022

[doi: 10.21468/SciPostPhysCodeb.3-r1.0](https://doi.org/10.21468/SciPostPhysCodeb.3-r1.0)
[publication repo](#)
[live repo \(external\)](#)
[BIBTeX](#)
[RIS](#)
[Submissions/Reports](#)

#### This Publication is part of a bundle

When citing, cite all relevant items (e.g. for a Codebase, cite both the article and the release you used).

DOI	Type
<a href="https://doi.org/10.21468/SciPostPhysCodeb.3">10.21468/SciPostPhysCodeb.3</a>	Article
<a href="https://doi.org/10.21468/SciPostPhysCodeb.3-r1.0">→ 10.21468/SciPostPhysCodeb.3-r1.0</a>	Codebase release

### Abstract

The compute efficiency of Monte–Carlo event generators for the Large Hadron Collider is expected to become a major bottleneck for simulations in the high–luminosity phase. Aiming at the development of a full–fledged generator for modern GPUs, we study the performance of various recursive strategies to compute multi–gluon tree–level amplitudes. We investigate the scaling of the algorithms on both CPU and GPU hardware. Finally, we provide practical recommendations as well as baseline implementations for the development of future simulation programs. The GPU implementations can be found at: <https://www.gitlab.com/ebothmann/blockgen-archive>.

# SciPost's business model

*Diamond*

(though I prefer metals)

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- costs: about €600 per publication

*A fraction of the current norm!*

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- consortial model: donations  
(inspirations: arXiv, ...)

# The PubFractions System

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- Every year, SciPost computes an average full infrastructure cost per publication
- Organizations can use this to determine their level of support

# SciPost Community-driven

## Latest Virtual General Meeting (2022)

The screenshot displays the SciPost website interface. At the top left is the SciPost logo. To the right is a search bar labeled 'Quick search'. Below the logo is a navigation menu with 'Journals', 'Submissions', 'More', and 'About SciPost'. On the right side of the navigation bar, it says 'Logged in as Prof. Jean-Sébastien Caux'. The main content area shows the breadcrumb 'Forums / Meeting Details'. The meeting title is 'VGM EdCol 2022-01' with a status 'Meeting is finished [2022-01-31 to 2022-02-06]' and a '138 posts' badge. A red-bordered box highlights the 'Admin actions' section, which includes 'Update this Meeting' and 'Delete this Meeting (and all Posts and Motions it contains)'. Below this is a 'Permissions on this Meeting instance' section with a 'View/manage' link. A 'Table of Contents' section lists 'Description', 'Preamble', 'Motions', 'Posts', and 'Minutes'. At the bottom, there are two 'Quick links' sections: 'all posts and motions (click to toggle)' and 'anchor posts, latest followup (click to toggle)'.

SciPost Quick search

Journals Submissions More About SciPost Logged in as Prof. Jean-Sébastien Caux

Forums / Meeting Details

Meeting is finished [2022-01-31 to 2022-02-06]

VGM EdCol 2022-01 138 posts

Admin actions:

- [Update this Meeting](#)
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Permissions on this Meeting instance [View/manage](#)

Table of Contents

- Description
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Quick links: all posts and motions (click to toggle)

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Based exclusively on Free Software

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## Tech stack:

All our systems are  
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We leverage and  
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### Tech stack:

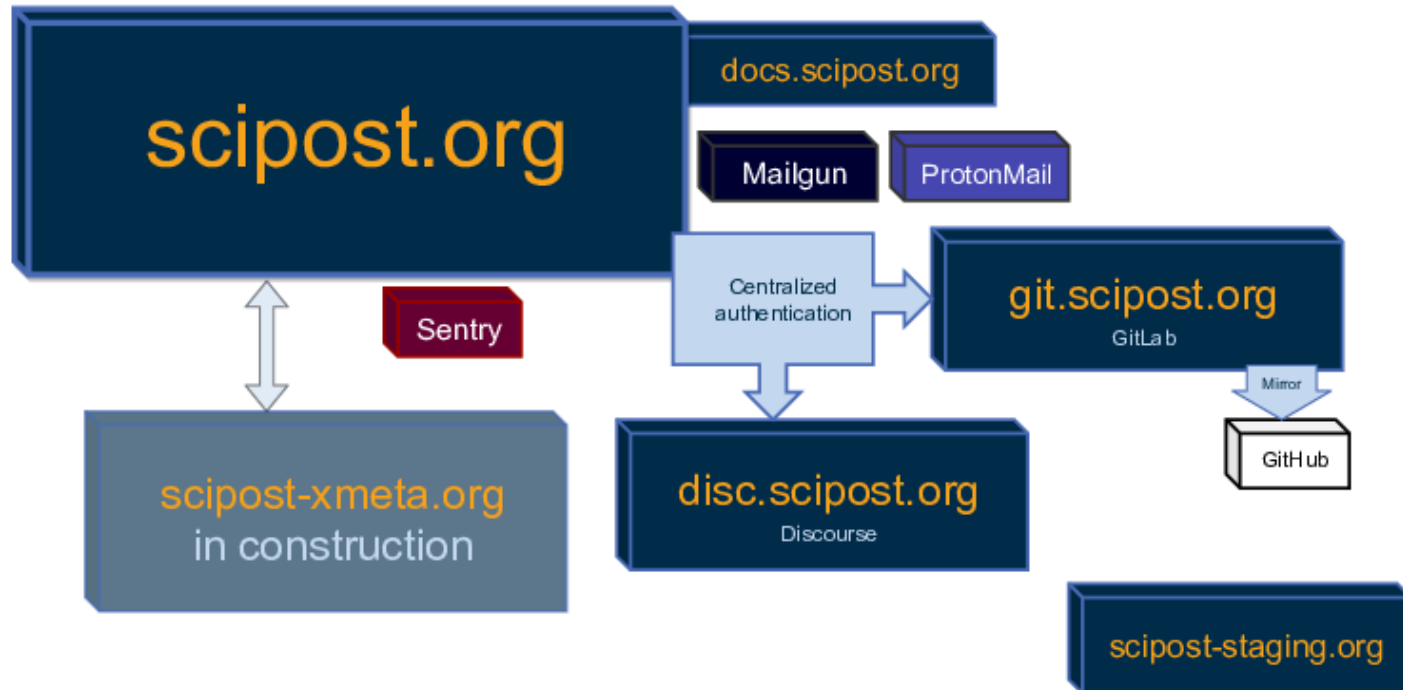
All our systems are built from scratch.

We leverage and contribute to FOSS.

- Django *[Python web framework]*
- PostgreSQL *[database engine]*
- ~~Vue.js~~ HTMX *[frontend tech]*
- Bootstrap *[frontend styling]*
- MathJax *[LaTeX javascript engine]*
- GitLab *[hub @ git.scipost.org]*
- ... lots more, see [git.scipost.org](https://git.scipost.org)

## SciPost Services Architecture

(July 2021)



SciPost

Quick search

Home Journals Publications Submissions **Reports needed**  Logged in as Prof. Jean-Sébastien Caux

Publication Public Api List

## Publication Public Api List

<< **1** 2 3 ... 46 >>

```

GET /api/publications/

HTTP 200 OK
Allow: GET, HEAD, OPTIONS
Content-Type: application/json
Vary: Accept

{
  "count": 1141,
  "next": "https://scipost.org/api/publications/?limit=25&offset=25",
  "previous": null,
  "results": [
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      "title": "Time-reversal symmetry breaking and emergence in driven-dissipative Ising models",
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      "abstract": "Fluctuation-dissipation relations (FDRs) and time-reversal symmetry (TRS), two pillars of statistical mechanics, are both broken in generic driven-dissipative systems. These systems",
      "doi_label": "SciPostPhys.12.2.066",
      "publication_date": "2022-02-17"
    },
    {
      "url": "/SciPostPhys.12.2.065",
      "title": "The  $U(1)$ -plane of rank-one  $4d$   $\mathcal{N}=2$  KK theories",
      "author_list": "Cyril Closset, Horia Magureanu",
      "abstract": "The simplest non-trivial  $5d$  superconformal field theories (SCFT) are the famous rank-one theories with  $E_n$  flavour symmetry. We study their  $U(1)$ -plane, which is the one-dimer",
      "doi_label": "SciPostPhys.12.2.065",
      "publication_date": "2022-02-17"
    }
  ]
}

```

# SciPost Software repo hosting

@ git.scipost.org

The screenshot shows the SciPost Codebases repository page on GitLab. The page is dark-themed and features a sidebar on the left with navigation options like Project overview, Details, Activity, Releases, Repository, Issues (36), Merge Requests (0), CI/CD, Security & Compliance, Operations, Packages & Registries, Analytics, Wiki, Snippets, Members, and Settings. The main content area displays the repository name 'SciPost' with a Project ID of 12, 5,886 Commits, 3 Branches, 4 Tags, 1.1 MB Files, and 1.1 MB Storage. Below this, there's a commit history section showing a recent commit titled 'Rework presentation of portal tabs' by Jean-Sébastien Caux, authored 1 day ago. The commit hash is 5ebf79a9. Below the commit, there are several buttons for adding features like README, GNU AGPLv3, CHANGELOG, CONTRIBUTING, Auto DevOps, and Kubernetes cluster. At the bottom, a table lists the repository's files and their last commit details.

Name	Last commit	Last update
.github	Add needed quotes	8 months ago
cronjobs	Update cronjobs	8 months ago
docs	Tweak editorconfig and docs to better fit Bla...	5 days ago
scipost_django	Rework presentation of portal tabs	1 day ago
scipost_vue	Fix Search.vue component (remove outdate...	3 months ago
.editorconfig	Tweak editorconfig and docs to better fit Bla...	5 days ago
.gitignore	Update .gitignore	3 weeks ago
.mailmap	Update mailmap	3 months ago
LICENSE.txt	Add licence (AGPLv3)	3 years ago

#### CONTENTS:

[The SciPost Foundation](#)

[Infrastructure team](#)

[Codebase](#)

[Deployment](#)

[Docs](#) » [SciPost](#)

[View page source](#)

[Next](#) ↗

## SciPost

Welcome to SciPost's infrastructure documentation!

### What is SciPost?

The [SciPost](#) project aims to transform academic publishing through the creation, operation and maintenance of a full-fledged, top-quality, open-sourced and academically-run infrastructure.

By building the machines and leaving the keys in the hands of academia, we intend to provide scientists worldwide with a healthier publishing and evaluation workflow, free of profiteering or further non-scientific interests.
















### Who are these pages intended for?

The documents listed here are primarily meant for good-willed geeks, techies or the plain curious.

Perhaps you are an academic and want to see the insides of what we've built for you and your community. Perhaps you happen to be a good web developer who feels like helping out. Perhaps you are one of our potential sponsors and want to check out how we do things, and how transparent our activities really are. Perhaps you are working for an organization which feels threatened by what we do, how we do it, and where it is all going.

# SciPost Community discussions

@ disc.scipost.org

SciPost		Log In	Q	☰
all categories ▾		Latest	Top	Categories
Topic		Replies	Views	Activity
<b>🚩 Welcome to SciPost's Discourse</b> A forum for users of SciPost in particular, and all interested in open science in general. Here, you will find discussions on lots of topics of relevance to the SciPost initiative: improvement suggestions, development i... read more		0	277	Apr '21
How to create inline or "online" citations?	 	1	128	Nov '21
<b>Refereeing guidelines</b> ■ Editorial	  	2	318	Oct '21
<b>Journals structuring</b> ■ Editorial	   	3	409	Sep '21
<b>Referee communication preferences</b> ■ Editorial	  	5	461	May '21
Exploration/request for feedback: SciPost implementing a community OAeX-inspired derivative of our business model? ■ Sponsors & business model		0	312	Apr '21
<b>Gathering sponsors</b> ■ Sponsors & business model		0	236	Apr '21



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# SciPost and CERN

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Collaboration Agreements

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Collaboration Agreements

2017-2019 (€6k) & 2020-2022 (€12k)

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Working on renewal and expansion!

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Publication statistics	SciPost Physics	459	[145]
	... Proceedings	338	[262]
<i>High-energy physics</i>	... Core	28	[10]
Total: 853	... Lecture Notes	25	[13]
[2022: 432]	... Codebases	2	[2]

# Final thought

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# Final thought

*Genuine Open Access Publishing is like Linux*

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- ... who are experts at customer "lock-in"
- It's a fragmented community

# Final thought

*Genuine Open Access Publishing is like **Linux***

Parallels are evident:

- It's the better OS, but "less easy" to use
- It's competing against huge corporations...
- ... who are experts at customer "lock-in"
- It's a fragmented community
- It's only adopted by a minority, despite the compelling technological, privacy, flexibility, customizability, and... cost advantages



**Jean-Sébastien Caux**

@jscaux



I recently abandoned Apple and moved back to Linux.

It's like leaving a multicolour candy superstore and setting out in the  wilderness.



Sure, I have to paddle harder and there are some mosquitoes, but I tell you: the air is much fresher and the vistas way more beautiful.

# The SciPost Team

J-S Caux	Founder; developer	Paula Perez	Admin (editorial)
Joost van Mameren	Secretary	Sergio E. Tapias Arze	Admin (editorial)
Jasper van Wezel	Treasurer	Jan Willem Wijnen	Sponsors
		George Katsikas	Production

**Thanks!**