

# **KLEINE UND GROßE HELFER**

**IM FORSCHUNGSALLTAG**

# THEMEN

OPEN SOURCE SOFTWARE UND SELBSTGESCHRIEBENE TOOLS

Datensammlung

Konfigurationsdateien Generieren

Visualisierung

Versionsverwaltung

Quellenverwaltung

# DATENSAMMLUNG

- **Viele Messpunkte computergestützt aufnehmen**
- **Auswertungen von Metadaten wie Dauer zwischen den Messpunkten**
- **Daten Strukturiert aufbewahren**



# POSTGRESQL

```
CREATE TABLE measurements_resistor (  
    id SERIAL PRIMARY KEY NOT NULL,  
    datetime timestamp(6)  
        with time zone  
        DEFAULT current_timestamp  
        NOT NULL,  
    voltage NUMERIC(8,3) NOT NULL,  
    current NUMERIC(8,3) NOT NULL  
);
```

```
INSERT INTO measurements_resistor (  
    voltage,  
    current  
) VALUES (  
    6.0,  
    3.1  
);
```

# MONGODB

```
db.msResistor.insertOne( { datetime: new Date(), voltage: 6.0, current: 3.1 } )
```

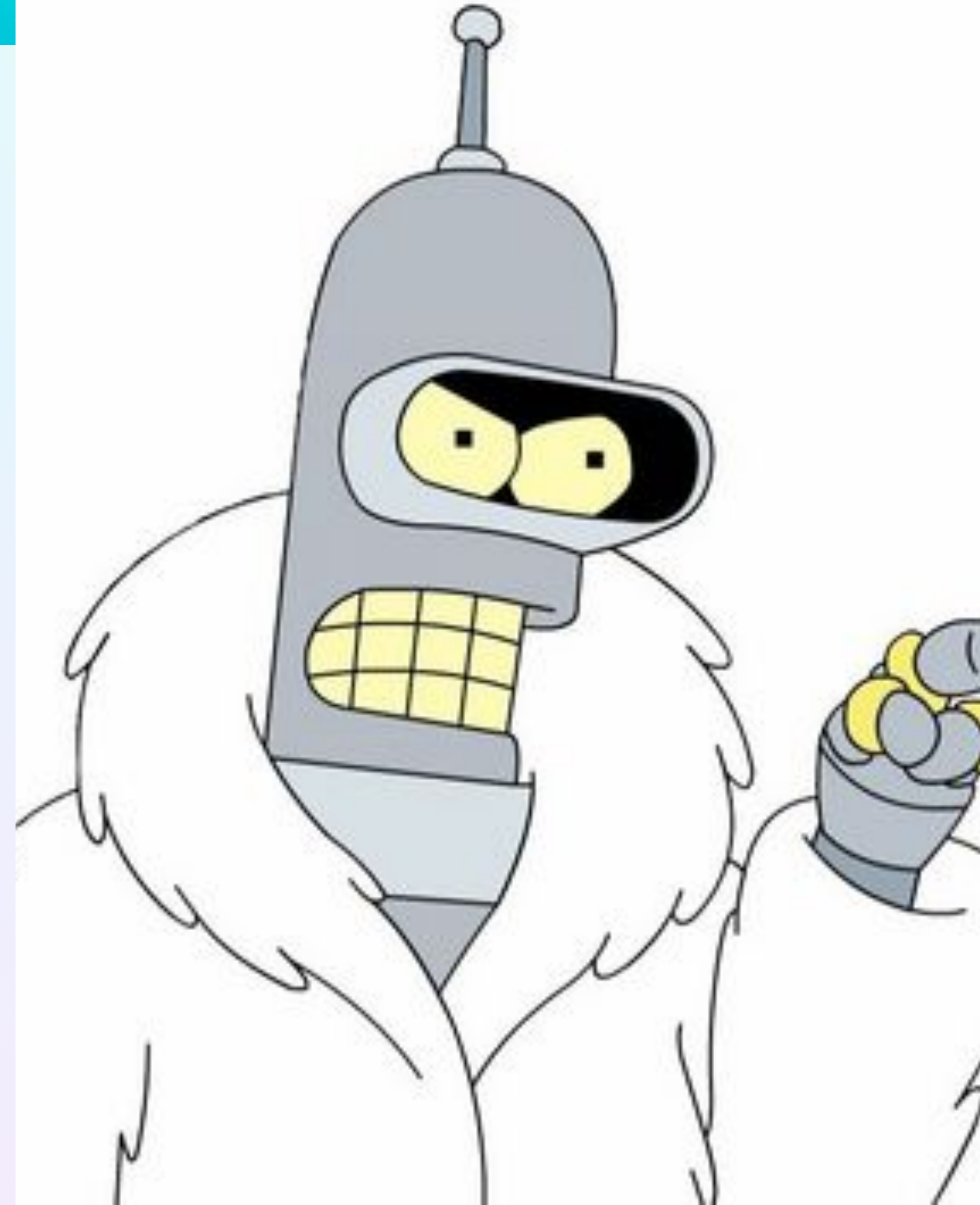
```
db.msResistor.insertOne( { datetime: new Date(), voltage: 6.1, current: 3.2 } )
```

```
db.msResistor.insertOne( { datetime: new Date(), voltage: 6.2, current: 3.4, foo: "bar" } )
```

```
db.msResistor.insertOne( { datetime: new Date(), voltage: 6.2, foo: "baz" } )
```

# DATEIEN GENERIEREN

- Konfigurationsdateien für die Simulationssoftware
- Zugangsmanagement von Webservern



# JINJA2

`<p>V = {{ voltage }}</p>`

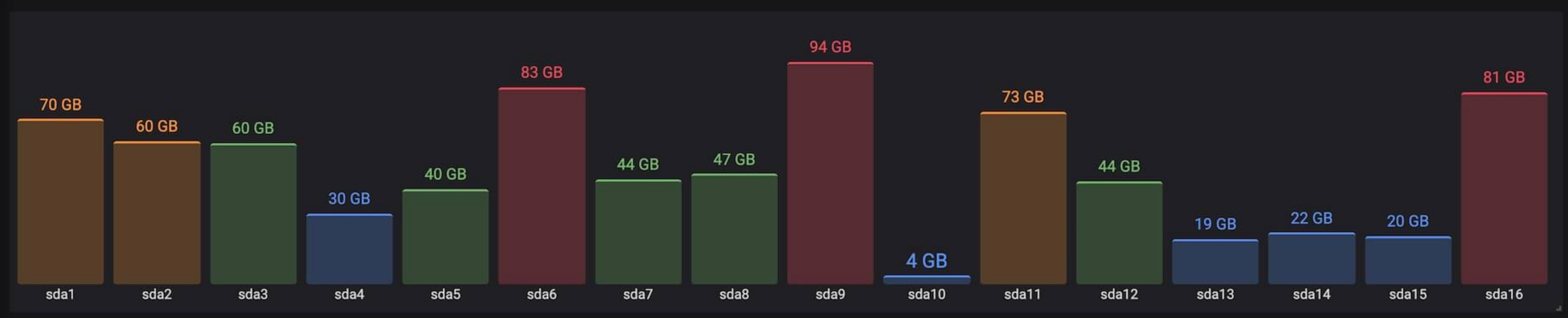
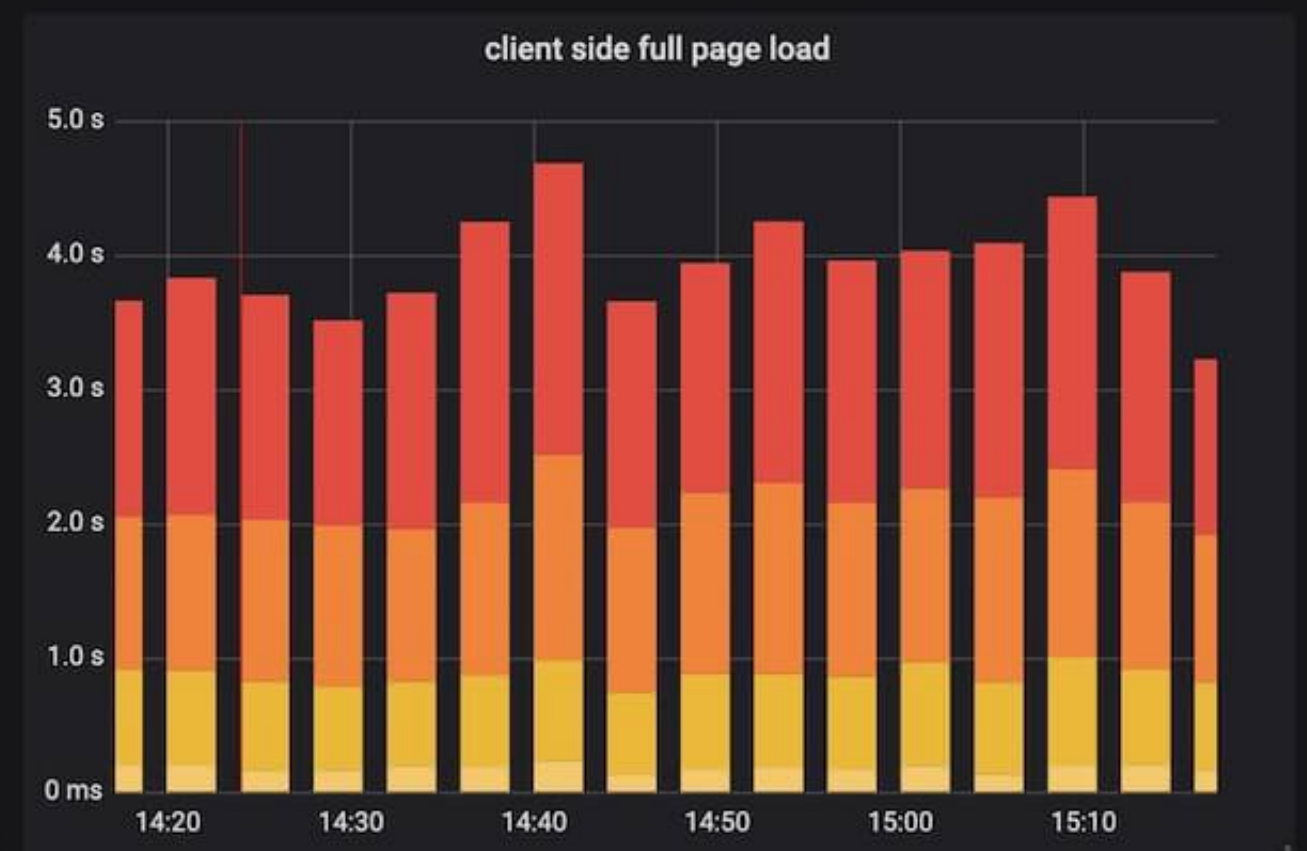
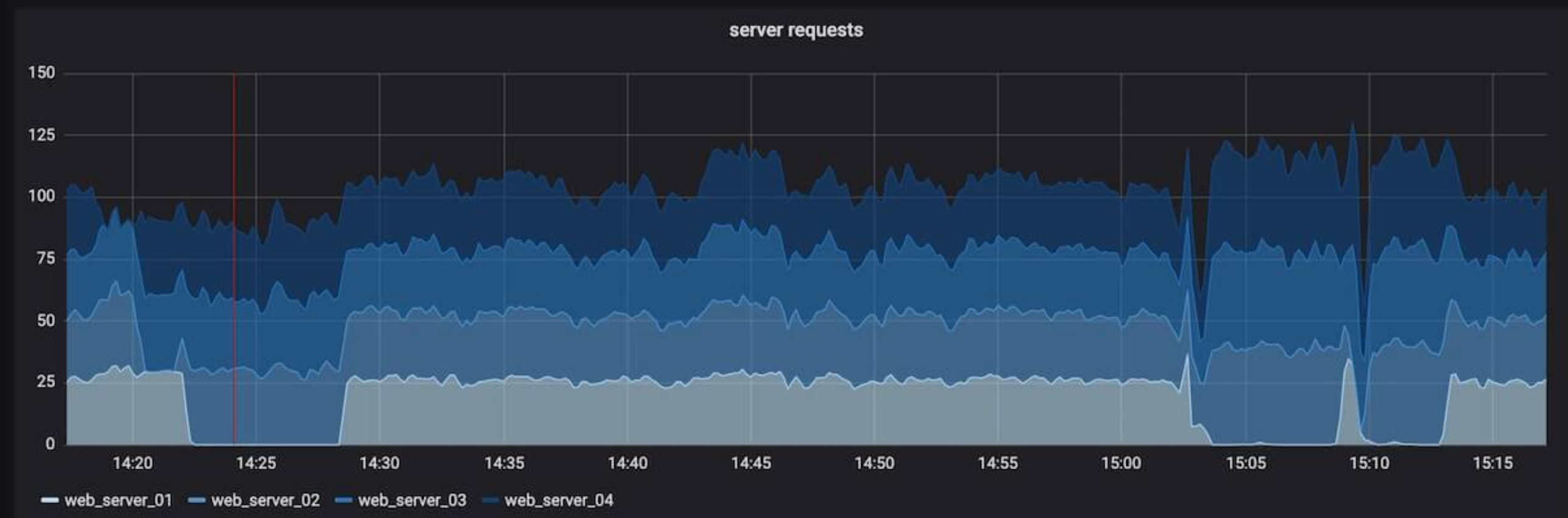
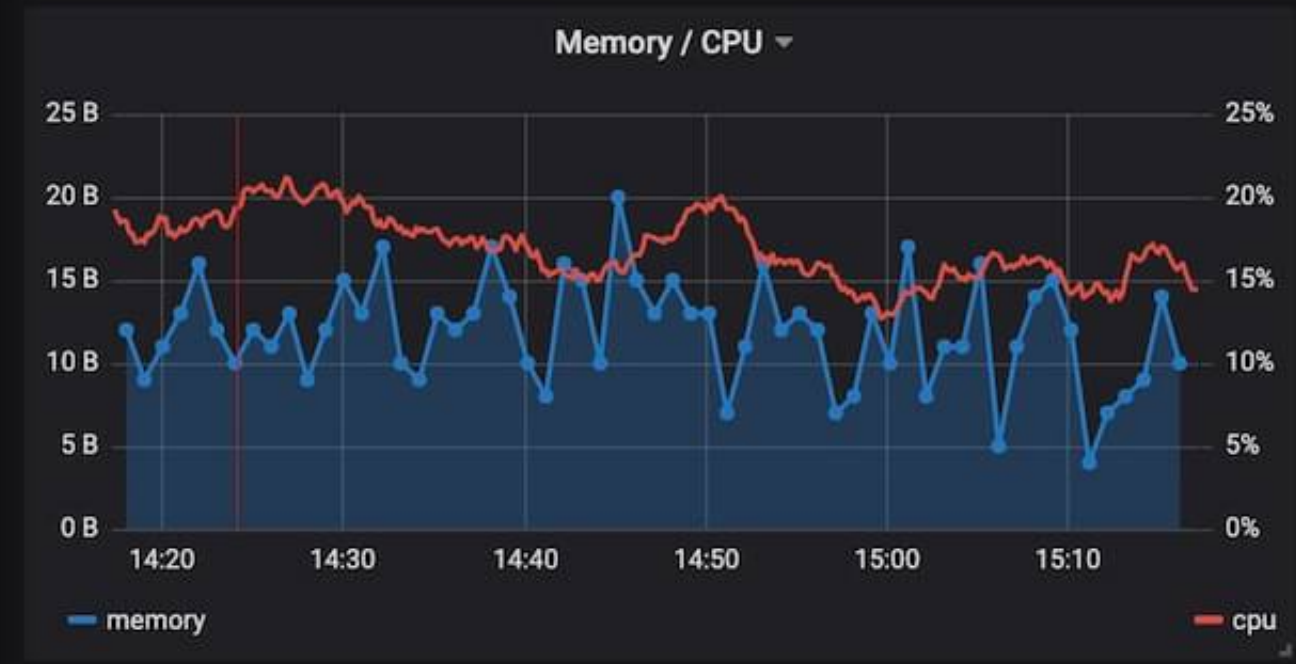
`<p>V = 6.4</p>`

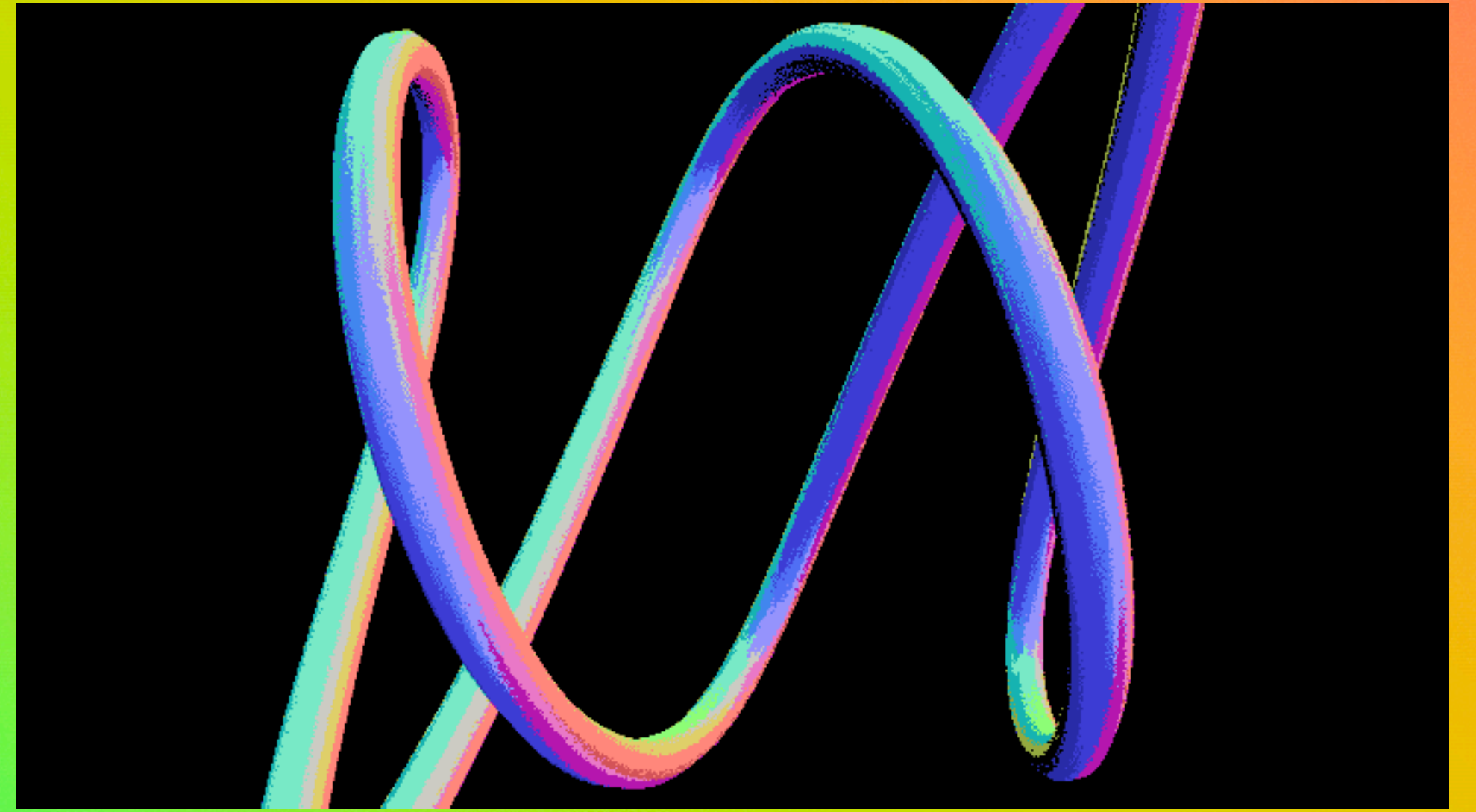
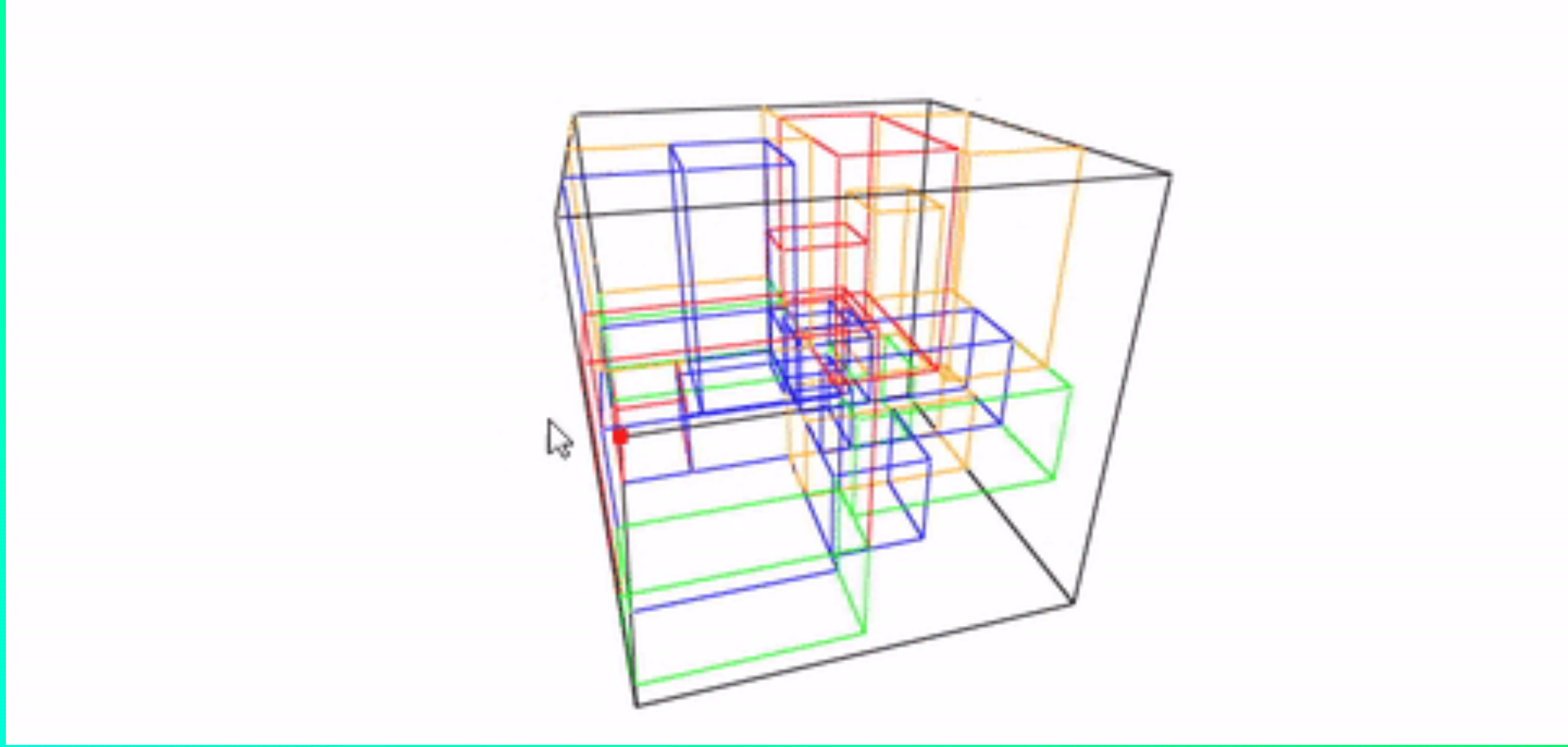
# VISUALISIERUNG

- **Graphen**
- **Interaktive 3D Modelle**









<https://threejs.org/>

<https://farfromhere.emmitfenn.com/>

# QUELLENVERWALTUNG

- **Stapel von Papier auf dem Tisch**
- **Welches Thema wird in welchem Paper behandelt?**
- **Ich möchte meine Quellen nach ganz individuellen Kategorien gruppieren...**



## Entries +

all

AI

CSS

Django

Framework

Freelancer

Go

Guitar

Health

OS Contribution Candidates

Possible Sources

Promotion

Python

Reading List

Rust

Tools

Tutorial

Ui Framework

Vue

Youtube



### Conceptual Design of the HL-LHC Hollow Electron Lens Superconducting Magnet System



<https://ieeexplore.ieee.org/abstract/document/9721706>

2c4502f6-c797-4a4d-a82e-2bc2e134e06d

The Hollow Electron Lens (HEL) units are part of the upgrade baseline of the High-Luminosity

### Analysis and interpretation of e-beam profile data for EBTS



[https://cds.cern.ch/record/2827313/files/CERN\\_Summer\\_Report.pdf](https://cds.cern.ch/record/2827313/files/CERN_Summer_Report.pdf)

9ad649d7-c59e-44fe-9296-76c7fc2a7bf7

Summer student report about the HEL (Hollow Electron Lens) at LHC

### pyJSPEC – A PYTHON MODULE FOR IBS AND ELECTRON COOLING SIMULATION\*



<https://www.osti.gov/servlets/purl/1903505>

89c3b13a-3098-40d8-9aef-9bec9e98d9e7

The intrabeam scattering is an important collective effect that can deteriorate the property of a high-intensity beam and electron cooling is a method to mitigate



# VERSIONS- VERWALTUNG

- **Quellcode**
  - **Skripte zur Dateiorganisation**
  - **Auswertungen, Plots**
  - **Software**
  - **Dokumente (LaTeX)**
- **Dateien**
  - **Bilder, Anträge, Berichte, ...**





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# forgejo / forgejo

mirror of <https://codeberg.org/forgejo/forgejo>

Watch

6

Star

2

Fork

0

<> Code

Issues

Read-only mirror of <https://codeberg.org/forgejo/forgejo> <https://forgejo.org/>

forge forgejo git self-hosted

15,982 Commits

59 Branches

183 Tags

568 MiB

forgejo

Go to file

HTTPS

<https://code.forgejo.org/forgejo/forgejo.git>

	<b>Earl Warren</b>	46606f45da		Merge remote-tracking branch 'forgejo/forgejo-dependency' into forgejo	5 days ago
	.devcontainer			add python/poetry to devcontainer (#25407)	3 weeks ago
	.forgejo			[CI] Forgejo Actions based release process	5 days ago
	.gitea			[WORKFLOW] issues & pr templates	5 days ago
	.github/workflows			delete Gitea specific files that need rewriting for Forgejo	5 days ago
	assets			Merge remote-tracking branch 'forgejo/forgejo-f3' into fo...	5 days ago
	build			[I18N] Add Locale merger script	5 days ago
	cmd			Merge remote-tracking branch 'forgejo/forgejo-f3' into fo...	5 days ago
	contrib			[BRANDING] parse FORGEJO_* in the container environ...	5 days ago



Search GitLab



## P Personal Landing Page

Project information

Repository

Issues 0

Merge requests 0

CI/CD

Security and Compliance

Deployments

Packages and registries

Infrastructure

Monitor

Analytics

Wiki

Snippets

Settings

Christoph Beberweil > Personal Landing Page

**P Personal Landing Page**

Project ID: 22

Star 0 Fork 0

45 Commits 2 Branches 0 Tags 8 MB Project Storage 1 Environment

My own personal landing page

**Remove visible pgp content, since it can be downloaded and copied anyways** 6980d91b

Christoph Beberweil authored 2 months ago

master personal\_landing\_page / + Find file Web IDE Clone

README CI/CD configuration Add LICENSE Add CHANGELOG Add CONTRIBUTING Add Kubernetes cluster

Add Wiki Configure Integrations

Name	Last commit	Last update
public	Remove visible pgp content, since it can be ...	2 months ago
src	Tailwind3, tech update	1 year ago
.dockerignore	Dockering	2 years ago