

Towards a Research Software Directory

GFZ Research Software Meet-up

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A Typical Research Software Citation

“We did this and that using the software
Someproduct (Author et al. 2011, 2019).”

The initial peer-reviewed paper
presenting *Someproduct* and
the algorithm.

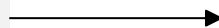
A conference presentation
about more recent features of
Someproduct.

Reasons why this should not be done

- Cited
 - method paper
 - talk with new features
- What would make the software citation more **FAIR**?
 - Specific software version
 - Link to a permanent storage of the software

“We did this and that using the software Someproduct (Author et al. 2011, 2019, **2022**).”

Author et al. 2022, Someproduct v1.3.124,
<https://linktodoiprovider.org/10.123/123123123>



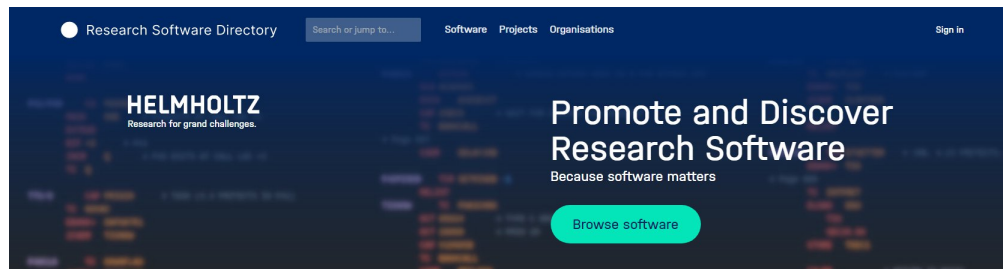
Permanent storage of
DOI provider with
access to actual
software.

More needs for improvement

- Licenses
- Findability outside of scientific literature
- Value recognition in scientific community
- Impact measurement
- Research software catalogues
- Incoherent metadata submitted to DOI providers

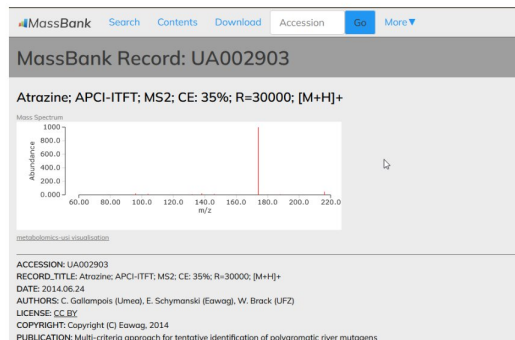


Research Software Directory



Software Spotlights

The latest outstanding software product developed in Helmholtz.



MassBank

MassBank is an open source mass spectral library for the identification of small chemical molecules of metabolomics, exposomics and environmental relevance.

- Originally developed by Netherlands eScience center
- Collaborating with HIFIS
- For RSEs
 - Promote your software
 - Become a Helmholtz software spotlight
- For Researchers
 - Browse software by topic or keywords
 - See whether software is maintained and estimate their impact
- Pilot online

<https://helmholtz.software>

The Software Page

Title and excerpt

GGIR

Converts raw data from wearables into insightful reports for researchers investigating human daily physical activity and sleep.

No. of citations and contributors

120 mentions 7 contributors

Link to get started

Get started

Commit activity graph

2330 commits | Last commit ~ 2 days ago

Helper for correct citation

Cite this software

DOI: 10.5281/zenodo.7043054

COPY TO CLIPBOARD

Choose a version: 2.7.6

Choose a reference manager format:

DOWNLOAD FILE

Description

What GGIR can do for you

- GGIR is an R-package to process and analysis multi-day data collected with wearable raw data accelerometers for physical activity and sleep research.
- GGIR uses this information to describe the data per day of measurement or per measurement, including estimates of physical activity, inactivity, and sleep. As part of the pipeline GGIR performs automatic signal calibration, detection of sustained abnormally high values, detection of sensor non-wear and calculation of average magnitude acceleration based on a variety of metrics.
- GGIR is the only open source licensed software that provides a full pipeline for both physical activity and sleep analyses, with a high freedom for the user to configure the analyses to their needs.
- The package has been used for domain science in 70+ publications, and is supported by 8 methodological publications.

The package has been developed and tested for binary data from GENEActiv and GENEA devices.

Keywords

Big data

Programming language

R 100%

License

LGPL-2.0

Source code

Keywords

Programming Languages

License

Link to repository

The Software Page

Links to citations
of the software

The screenshot shows a software page layout with several sections. At the top, under 'Participating organisations', are logos for Activinsights, Inserm, MRC Epidemiology Unit, Netherlands eScience center, UCL, and Universidad de Granada. Below this is the University of Leicester logo. The 'Mentions' section lists links to blogposts, book sections, conference papers, journal articles, video recordings, and webpages. The 'Testimonials' section features a quote from Damien Bachasson. The 'Contributors' section highlights Vincent van Hees as the contact person, along with Evgeny Mirkes and Jairo Migueles. The 'Related projects' section shows a project titled 'Genetics of sleep patterns'.

Participating organisations

Mentions

- Blogposts
- Book section
- Conference papers
- Journal articles
- Video recordings
- Webpages

Testimonials

Contributors

CONTACT PERSON

Vincent van Hees
Netherlands eScience Center
Mail Vincent

Evgeny Mirkes
University of Leicester

Jairo Migueles
University of Granada

Related projects

Genetics of sleep patterns
Detecting human sleep from wearable accelerometer data without the aid of sleep diaries
Updated 2 months ago
Finished

Participating
organisations

Testimonials

Contributors

Related projects or
software

Software Maintainer View

RSD

Search or jump to...

Software Projects Organisations

+

CM

Palladio

VIEW

SAVE

1

Information

Required information

2

Contributors

Required information

3

Organisations

Optional information

4

Mentions

Optional information

5

Testimonials

Optional information

6

Related topics

Optional information

7

Maintainers

Optional information

Software information

RSD path

palladio

Use letters, numbers and dash "-". Other characters are not allowed.

8/200

Name

Palladio

Provide software name to use as a title of your software page.

8/200

Short description

Palladio is a software architecture simulation approach which analyses software at the model level for performance bottlenecks, scalability issues, reliability threats, and allows for subsequent optimisation.

Provide a short description of your software to use as page subtitle.

209/300

Software URLs

Where can users find information to start?

Get Started URL

<https://www.palladio-simulator.com/>

Link to documentation for users.

35/200

Repository URL

<https://github.com/PalladioSimulator>

Platform

GitHub

Link to source code repository

36/200

Description

What Palladio can do for you

☐ Document URL ☒ Custom markdown

MARKDOWN

PREVIEW

3490/10000

Palladio - Modeling and Simulating Software Architectures

Palladio is a software architecture simulation approach which analyses your software at the model level for performance bottlenecks, scalability issues, reliability threats, and allows for a subsequent optimisation. Palladio requires

- Fully elaborated web frontend
- Aim for high degree of automation
- Auto-import metadata from DOIs
- Auto-fill contributor information from DOIs
- Invite others to maintain entries

Status and plans

- Currently in public testing stage
- Provide more services for RSEs
 - License consultation
 - Automated software analysis (code style, security, dependency licenses)
 - Automated citation scraping
 - Prepare metadata and directly send to DOI minting providers for publication
- Software impact measurement
- Central research software catalogue in Helmholtz
- Allow application as Helmholtz Software Spotlight
- Awards for best open source projects

Resources

- Netherlands Research Software Directory
 - <https://research-software-directory.org>
- Helmholtz RSD pilot
 - <https://helmholtz.software>
- Helmholtz GitHub repository
 - <https://github.com/hifis-net/RSD-as-a-service>

