

The OpenAIRE Graph

Empowering Research through Open Science

Stefania AMODEO, OpenAIRE Graph

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Ljubljana in online, Centralna tehniška knjižnica Univerze v Ljubljani,
Predstavitev za konzorcijske partnerje in širšo javnost, 3. 10. 2024



NAČRT ZA
OKREVANJE
IN ODPORNOST



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA VIŠKO ŠOLSTVO
ZNANOST IN INOVACIJE



The OpenAIRE Graph

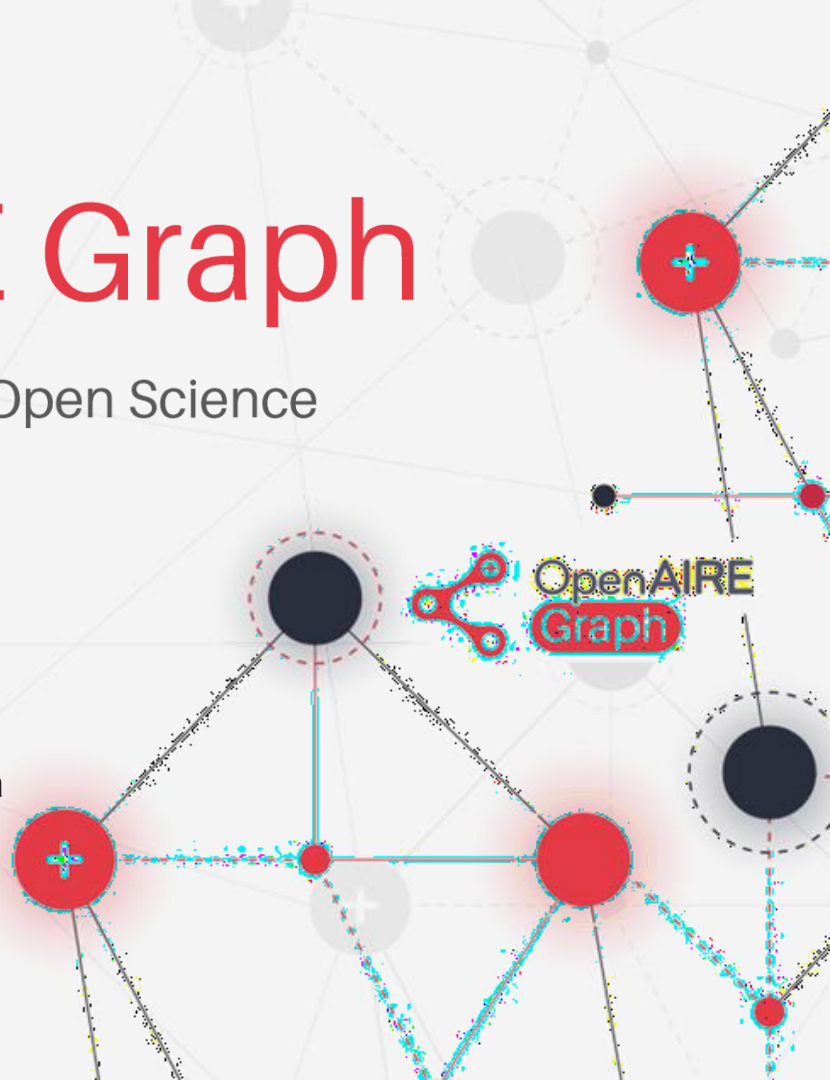
Empowering Research through Open Science

SPOZNAJ Webinar, 03 Oct 2024

Presenter: Stefania Amodeo

Contributors:

Alane Brunschweiler, Franziska Krauss, Giulia Malaguarnera
& [OpenAIRE Graph Team](#)



OpenAIRE AMKE

55

members

36

countries

- Non-profit organisation, established Oct 2018
- A **Scholarly Communication e-Infrastructure** that brings together **human capital** and **advanced ICT services**
 - Aligning policies
 - Operating services
 - Offering training
- A **network of experts** from major national organisations (National Open Access Desks), in operation **since 2009**



Global Collaborations: Latin America, US, Canada, Japan, Korea, ...

OpenAIRE - The Mission

Shift Scholarly Communication paradigm towards **transparency & accessibility**

Support **compliance with OA policies**, contributing to more efficient scientific discovery and engagement with society at large.



Promote and implement Open Science practices, **enabling free access to research outputs**, including publications, data, software and methodologies.

Foster **sharing and collaboration** among researchers.

A Community-Driven Effort



Tracking Open Research

Reproducibility and transparency require tracking of all outcomes of science and related “context”



Discovering Open Research

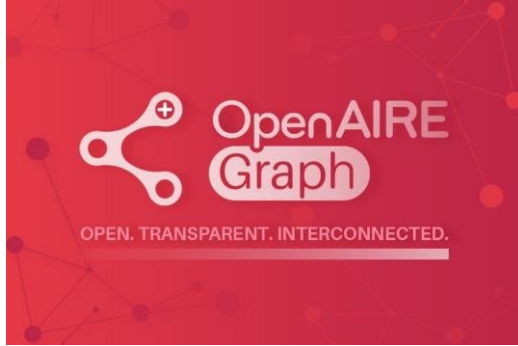
Discovery of reproducible science outcomes must find new ways, driven by “scientific intentions” that go beyond the “find articles related to a research topic”



Monitoring (Open) Research

Monitoring quality, impact, and openness of science should be a transparent, reproducible process for all, inclusive of research “context”

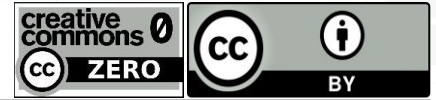
A Global Scholarly Knowledge Graph



A collection of metadata describing
entities of the research lifecycle and
relationships among them

A 360° view of research

Open



Transparent

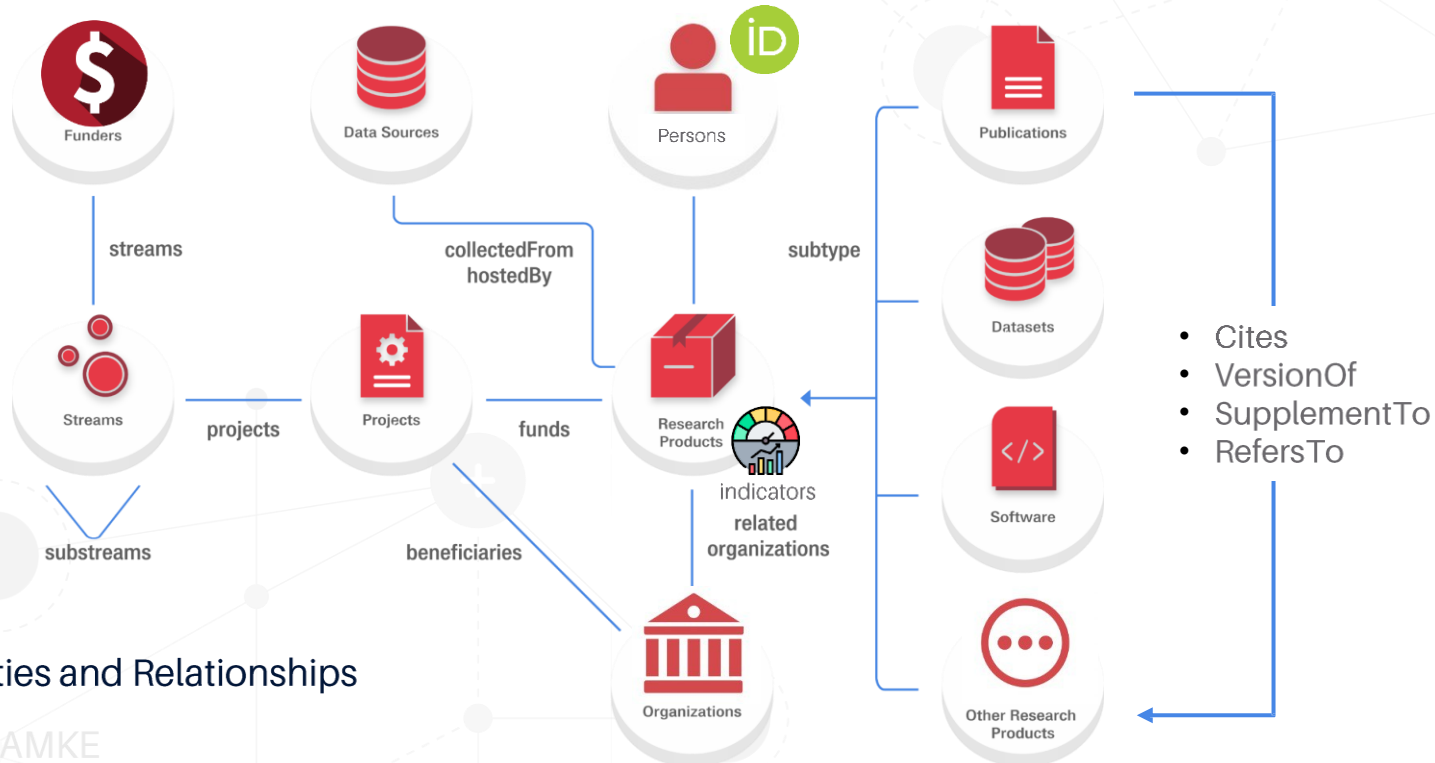
Enriched

Interoperable

Connected

Completed with Metrics

The Data Model Moon's View



Graph's Entities and Relationships

A Key Asset for Europe & the World

Scientific Discovery

The Graph is used in the **OpenAIRE EXPLORE** service, enabling users to efficiently search and navigate through an interconnected research ecosystem. Additionally, it serves as the primary resource supporting the exploration and recommendations in the **EOSC EU Node** (**EOSC Portal**).

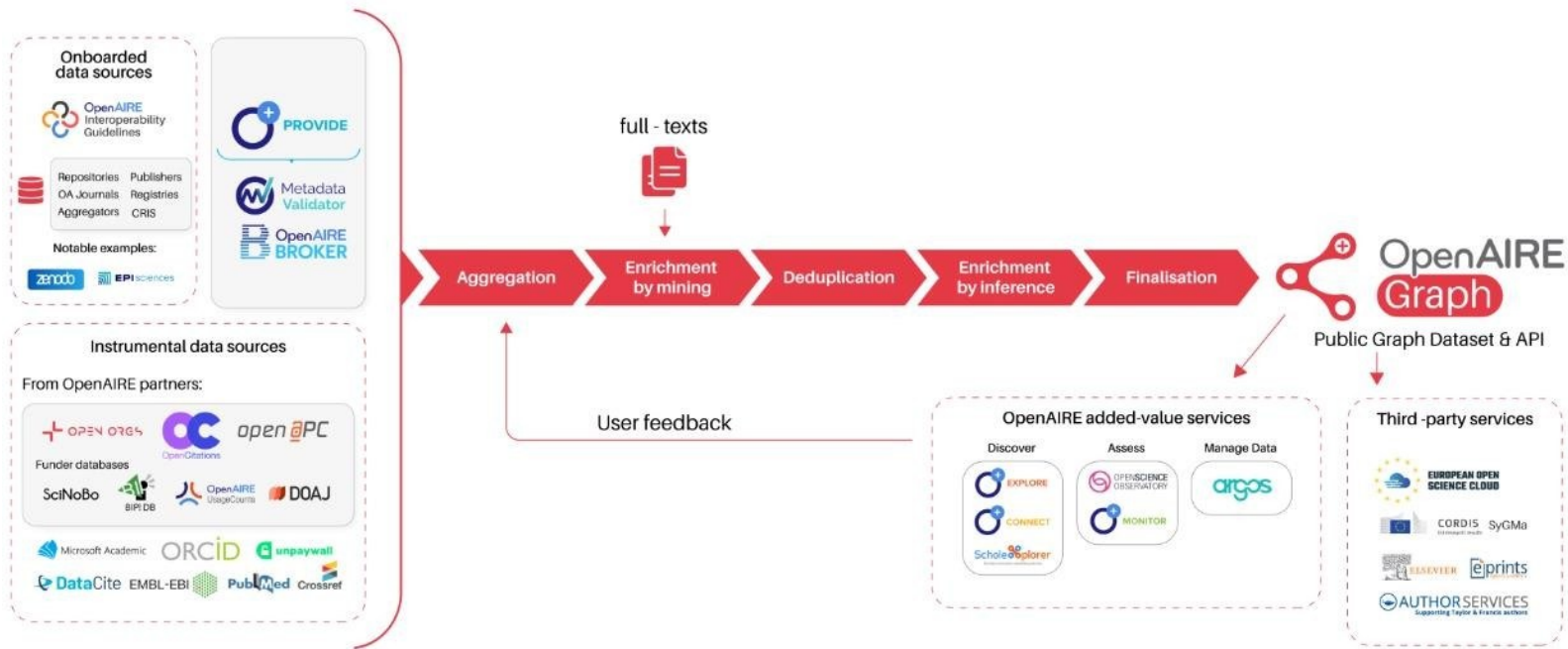
Bibliometrics

Used for research evaluation in replacement of proprietary databases such as **Web of Science** or **Scopus**, with several benefits, including openness and transparency, embedded citation metrics and indicators, access to information beyond publications such as data and software, and the ability to easily integrate your own databases. Get a glimpse in **OpenAIRE MONITOR**.

Open Science Monitoring

The Graph maintains data related to monitoring Open Access and Open Science policies. It is currently used in services such as the **Open Science Observatory**, the **EOSC Observatory**, and the **Irish National OA Monitor**. Also check **OpenAIRE MONITOR** to view out of the box indicators for organisations.

How is it made?



Data Sources Contributing to the Graph






... and more tools and software sources






... and more publishers



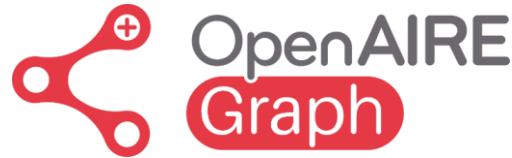


... and more European and international funders





... and more research s










... and more registries





... and more aggregators








... and more thematic and institutional repositories








... and more infra and RI sources

- ✓ Compliant with OpenAIRE Interoperability Guidelines
- ✓ Automatic integration into OpenAIRE and EOSC
- Deposit your AAM (VoR) and boost your research dissemination

[Repository of University of Nova Gorica \(RUNG\)](#)

[Digital Repository of Slovenian Research Organizations \(DiRROS\)](#)

[Repository of University of Primorska \(RUP\)](#)

[Repository of colleges and higher education institutions \(REVIS\)](#)

[Digital Library of University of Maribor \(DKUM\)](#)

[Repository of the University of Ljubljana \(RUL\)](#)

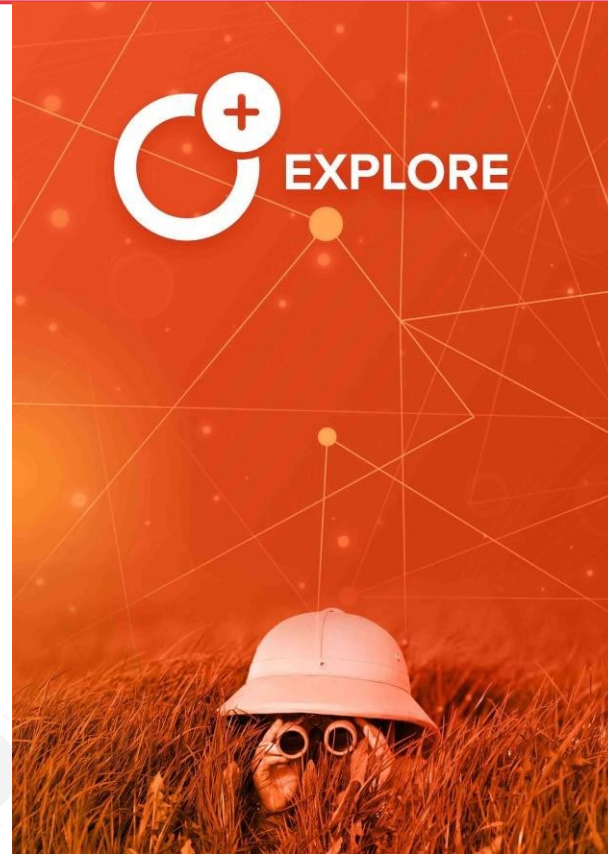
Applications for Researchers

Explore the Graph's knowledge base

Navigate the Graph's wealth of knowledge with OpenAIRE EXPLORE

- Discover all types of scholarly works
- Track your projects' citations
- Navigate through funding/grants, organisations, countries, Field of Science, SDG, language, and more

explore.openaire.eu



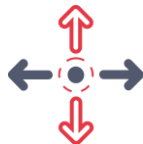


OpenAIRE
Graph

Share your Research



Deposit your research in an
OpenAIRE compatible repository



All results are indexed in the Graph,
and discoverable and accessible via
the EXPLORE interface

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Repository of the
University of Ljubljana

Open Science Slovenia Open Science DiKUL A* A* siv | eng

Search Browse New in RUL About RUL In numbers Help Sign in

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RUL Search Advanced search

Show full text results only

Results

100 results

1. Quantum many-body spin ratchets

Lenart Zadnik, Marko Ljubotina, Žiga Krajnc, Enaj Ilievski, Tomaž Prosen, 2024, original scientific article

Keywords: nonequilibrium statistical mechanics, quantum mechanics, many-body systems

Full text (file, 1,01 MB) This document has more files! [More...](#)

2. Kvantna integrabilnost in kaotičnost v 2D Heisenbergovem modelu

Domen Zevnik, 2024, master's thesis

Keywords: Algebraični Bethejev nastavek, 2D Heisenbergov model, kvantna integrabilnost, kvantni kaos, razmerje razmikov sosednjih energij spektra, spektralni oblikovni faktor,

Full text (file, 2,05 MB)

3. Nelinearni sigma modeli

Urban Grahovac, 2024, master's thesis

Access

- ☐ Open Access
- ☐ Closed Access
- ☐ Restricted
- ☐ Open Source
- ☐ Embargo

Type

- ☐ Publications
- ☐ Research Data
- ☐ Research Software
- ☐ Other Research Products

Year range Clear

2015 2024

This year Last 5 years Last 10 years

Field of Science

- ☐ Natural Sciences (71)
- ☐ Physical Sciences (70)
- ☐ General Physics (70)
- ☐ Emerging Technologies/Quantum (68)
- ☐ Fluids & Plasmas (31)
- ☐ Plasma Physics/Astrophysics (20)

View all >

Funder

- ☐ European Commission (128)
- ☐ Fundação Para A Ciência E... (13)
- ☐ UK Research And Innovation (8)
- ☐ French National Research Ag... (3)

2015-2024

Exact asymptotics of the current in boundary-driven dissipative quantum chains in large external fields

Publication » Article, Journal • 2019 • Embargo end date: 01 Jan 2019 • Publisher: American Physical Society (APS)

Authors: Tomaž Prosen; Zala Lenarčič

arXiv.org e-Print Ar... < > < > < >

Infinitely Dimensional Lax Structure for the One-Dimensional Hubbard Model

Publication » Journal, Article • 2015 • Embargo end date: 01 Jan 2015 • Publisher: American Physical Society (APS)

Authors: Tomaž Prosen; Vladislav Popkov

arXiv.org e-Print Ar... < > < > < >

Identifying Local and Quasilocated Conserved Quantities in Integrable Systems

Publication » Article, Journal • 2019 • Publisher: American Physical Society (APS)

Authors: Tomaž Prosen; Peter Prelovšek; Peter Prelovšek; Marcin Mierzejewski

Physical Review Lett... < > < > < >

Observables and density matrices embedded in dual Hilbert spaces

Publication » Article, Journal • 2019 • Embargo end date: 01 Jan 2014 • Publisher: IOP Publishing

Authors: Tomaž Prosen; Thomas H. Seligman; Laura Mertigoni

arXiv.org e-Print Ar... < > < > < >

Vanishing spin stiffness in the spin-1/2 Heisenberg chain for any nonzero temperature

Publication » Article, Journal • 2019 • Embargo end date: 01 Jan 2014 • Portugal • Publisher: American Physical Society (APS) • Funded by: FCT | SFR-HSAB/117/2011

Authors: Tomaž Prosen; José Manuel Pereira Carmelo; José Manuel Pereira Carmelo; David K. Campbell

Universidade do Minho... < > < > < >

Quasilocated conservation laws from semicyclic irreducible representations of $U_q(\mathfrak{sl}_2)$ in XXZ spin-1/2 chains

Publication » Article • 2016 • Publisher: Elsevier BV

Authors: Lenart Zadnik; Marko Medenjak; Marko Prosen; Tomaž Prosen

Nuclear Physics B < > < > < >

Quasilocated conservation laws from semicyclic irreducible representations of $U_q(\mathfrak{sl}_2)$ in XXZ spin-1/2 chains




Publication » Article, Journal • 2016 • Embargo end date: 01 Jan 2015 • Publisher: Elsevier BV

Authors: Lenart Zadnik; Marko Medenjak; Tomaž Prosen

Nuclear Physics B < > < > < >

Finite-temperature transport in one-dimensional quantum lattice models

 **Publication** >> *Article, Journal* • 2021 • Embargo end date: 01 Jan 2020 • Slovenia, Germany • Publisher: American Physical Society (APS) •
Funded by: NSF | Kavli Institute for Theor..., EC | QUANTMATT, EC | OMNES

Authors: *Tomaž Prosen*;  *Christoph Karrasch*;  *Robin Steinigeweg*;  *Fabian Heidrich-Meisner*; [+2 Authors](#)

DOI: [10.1103/revmodphys.93.025003](https://doi.org/10.1103/revmodphys.93.025003) , [10.48550/arxiv.2003.03334](https://doi.org/10.48550/arxiv.2003.03334)  HANDLE: [20.500.12556/RUL-126996](https://nbn-resolving.org/urn:nbn:de:hebis:3:5-64688-p0011-7) 

The last decade has witnessed an impressive progress in the theoretical understanding of transport properties of clean, one-dimensional quantum lattice systems. Many physically relevant models in one dimension are Bethe-ansatz integrable, including the...

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
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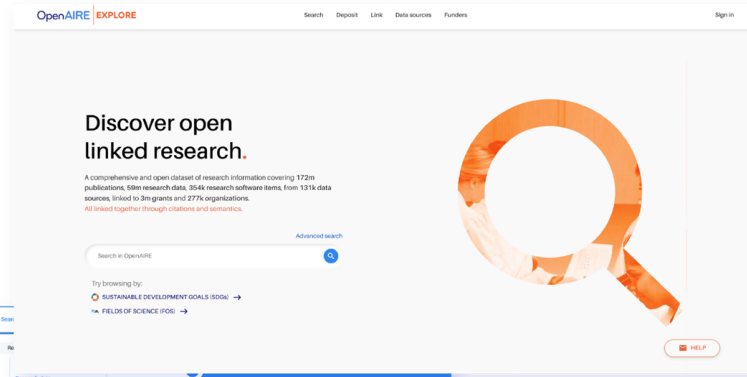
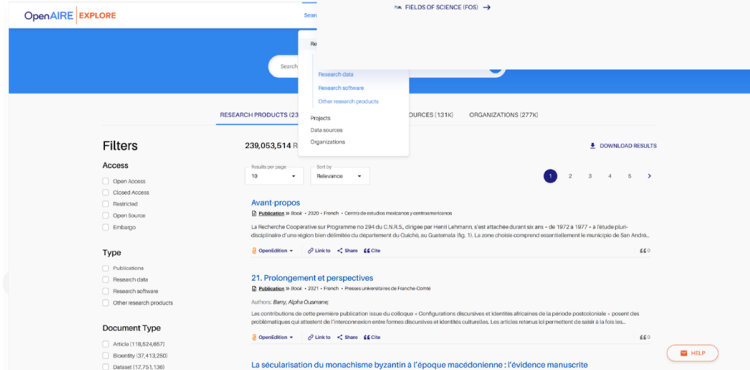
 [Repository of the University of Ljubljana](#) 
Article . 2021
Data sources: Repository of the University of Ljubljana

 [arXiv.org e-Print Archive](#) 
Preprint . Other Literature Type
. 2020
Data sources: arXiv.org e-Print Archive

 [Publikationsserver der Georg-August-Universität Göttingen](#) 
Article . 2021
Data sources:
Publikationsserver der Georg-August-Universität Göttingen

 [Reviews of Modern Physics](#) 
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 [Reviews of Modern Physics](#) 
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2021 . Peer-reviewed
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Full-Text: <http://harvest.aps.org/>...
Data sources: Sygma; Crossref; European Union Open Data Portal



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<https://www.openaire.eu/claim-publication>

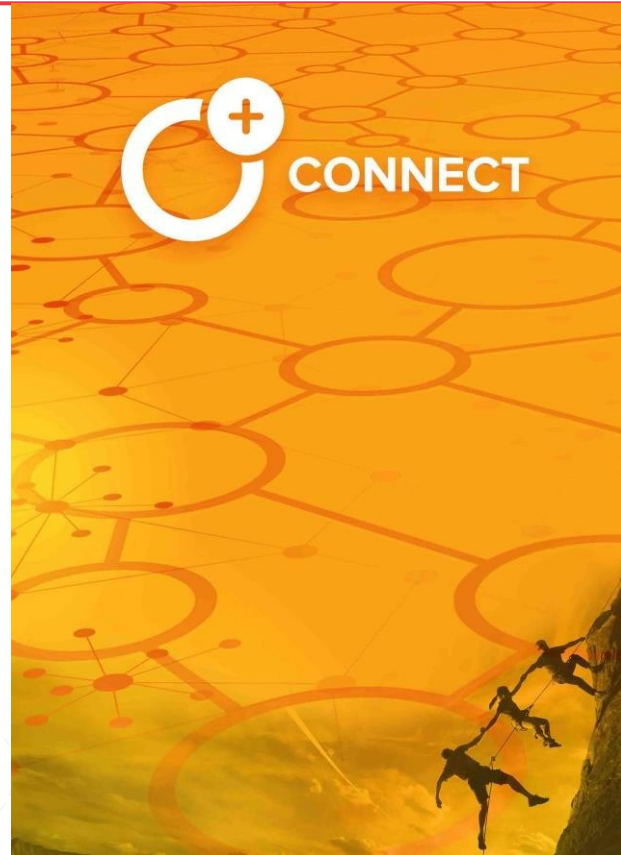
<https://www.openaire.eu/openaire-explore-integration-with-the-orcid-search-and-link-wizard>

Applications for Thematic Communities Research Organisations, Networks

Build a **Gateway** for your Community

- Enhance **collaborations** between researchers within your community
- Discover **research tailored** to your community's interests
- Increase **access** to your community's **research data**

connect.openaire.eu




Monitor & Evaluate your Research

- Track your research activities and their **impact** in the Open Science landscape
- Present your activity to **external stakeholders**
- Access **metrics** to develop your strategy

monitor.openaire.eu



 **EUTOPIA Alliance**
EUTOPIA Open Research Portal

Type
Research products

Scholarly works
Search in OpenAIRE

EUTOPIA is an ambitious alliance of 10 like-minded universities ready to reinvent themselves: the Babeş-Bolyai University in Cluj-Napoca (Romania), the Vrije Universiteit Brussel (Belgium), the Ca' Foscari University of Europe (Italy), CY Cergy Paris Université (France), the Technische Universität Dresden (Germany), the University of Gothenburg (Sweden), the University of Ljubljana (Slovenia), the NOVA University Lisbon (Portugal), the University of Pompeu Fabra (Spain) and the University of Warwick (United Kingdom). Together, these 10 pioneers join forces to build the university of the future.

Gateway Inform

Created: 13-Jul-2022

3
Projects**9**
Data sourcesPublications
872.4K[Home](#) [Deposit](#) [Link](#) [Search](#) [About](#) [Develop](#)Filters [Clear All](#)

Access

- ☐ Open Access
- ☐ Closed Access
- ☐ Restricted
- ☐ Open Source
- ☐ Embargo

Type [Clear](#)

- ☐ Publications
- ☒ Research Data
- ☐ Research Software
- ☐ Other Research Products

Document Type


- ☐ Dataset (41,028)
- ☐ Collection (5,287)
- ☐ Bioentity (2,368)
- ☐ Image (1,867)
- ☐ Audiovisual (509)
- ☐ Other Dataset Type (118)

The following results are related to [EUTOPIA Alliance](#). Are you interested to view more results? Visit [OpenAIRE - Explore](#)

50,611 Research Products

Sort by
Date (most recent)[EUTOPIA Alliance](#)[Research Data](#)[Agta hunter-gatherer oral microbiomes are shaped by contact network structure](#) [Research Data](#) » Dataset • 2030 • Publisher: ZenodoAuthors: Musciotta, Federica; Dobon, Begoña; Greenacre, Michael; Mira, Alex; [+12 Authors](#)DOI: [10.5281/zenodo.6338839](#) [10.5281/zenodo.6338840](#)

Here we investigate the effects of extensive sociality and mobility on the oral microbiome of 138 Agta hunter-gatherers from the Philippines. Our results show that the Agta hunter-gatherer microbiome composition showed that the Agta are more similar to Central African Bayaka hunter-gatherers than to neighbouring farmer groups.

 ZENODO[Link to](#)[Share](#)[Cite](#)[Claim](#)[Imaging the effects of magnetic proximity coupling on the electronic structure of transition metal dichalcogenides \(thesis data\)](#) [Research Data](#) » Dataset • 2026 • Embargo end date: 12 Jan 2026 • United Kingdom • Publisher: University of St Andrews • Funded by: UKRI | Skyrmonics: From Magnetism to Quantum Computing | QUESTDO, UKRI | Strain-tuning electronic ... [+1 projects](#)Authors: [Edwards, Brendan Mark](#);DOI: [10.17630/a31d1e0c-63c1-41ce-bd9e-8ad3439603f0](#)

The research data supporting this thesis. Data file types include .libw, .nxs, .bmp, .nc, .xy, .dat and .zip. See the "Thesis Data Summary" word document for more information. The data files are embargoed until 12/01/2026



EUTOPIA Alliance

EUTOPIA is an ambitious alliance of 10 like-minded universities ready to reinvent themselves: the Babeş-Bolyai University in Cluj-Napoca (Romania), the Vrije Universiteit Brussels (Belgium), the Ca' Foscari University of Venice (Italy), the University of Cologne (Germany), the University of Göttingen (Germany), the University of Leoben (Austria), the University of Lisbon (Portugal), the University of Marburg (Germany), the University of Warwick (UK), the University of Warsaw (Poland).



EUTOPIA Open Research Portal

Creation Date: 14-11-2022

Type: Research Initiative

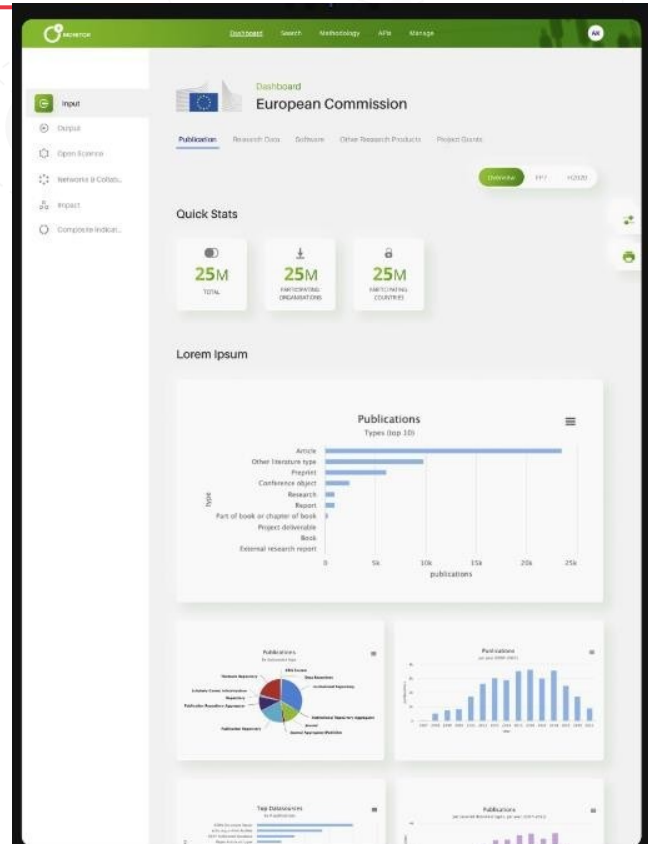
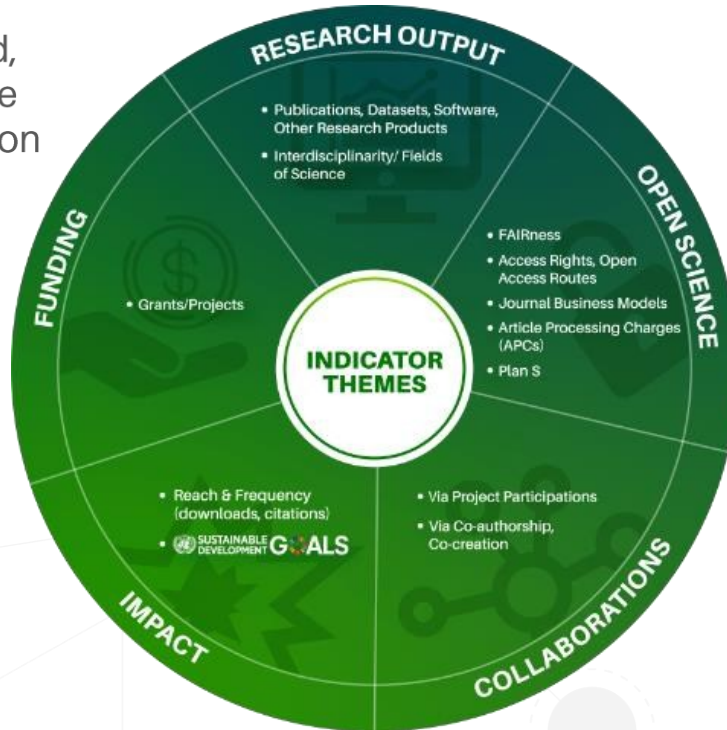
Monitor dashboard for the EUTOPIA Alliance. EUTOPIA is an ambitious alliance of 10 like-minded universities ready to reinvent themselves: the Babeş-Bolyai University in Cluj-Napoca (Romania), the Vrije Universiteit Brussels (Belgium), the Ca' Foscari University of Venice (Italy),...



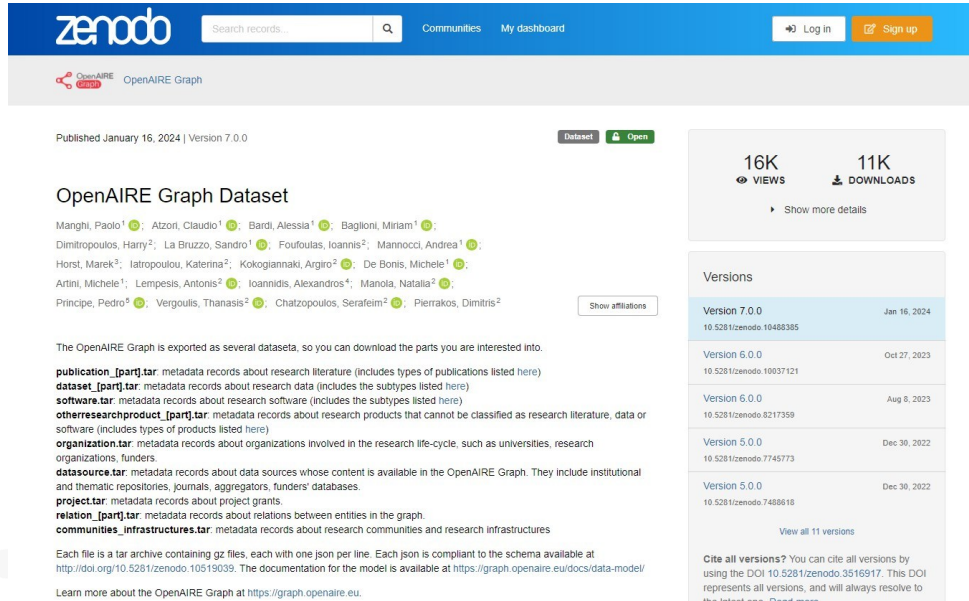
Discover, track and understand trends and impact pathways for your organization

Customize your Monitor Dashboard

Indicators documented,
verified and used by the
scholarly communication
community



Do you have technical expertise?



zenodo Search records Log in Sign up

OpenAIRE Graph

Published January 16, 2024 | Version 7.0.0

Dataset Open

OpenAIRE Graph Dataset

Manghi, Paolo¹; Atzori, Claudio¹; Bardi, Alessia¹; Baglioni, Miriam¹; Dimitropoulos, Harry²; La Bruzzo, Sandro¹; Fofoulas, Ioannis²; Mannocci, Andrea¹; Horst, Marek³; Iatropoulou, Katerina²; Kokogiannaki, Argiro²; De Bonis, Michele¹; Artini, Michele¹; Lempesis, Antonis²; Ioannidis, Alexandros⁴; Manola, Natalia²; Principe, Pedro⁵; Vergoulis, Thanasis²; Chatzopoulos, Serafeim²; Pierrakos, Dimitris²

Show affiliations

The OpenAIRE Graph is exported as several datasets, so you can download the parts you are interested into.

- publication_[part].tar**: metadata records about research literature (includes types of publications listed here)
- dataset_[part].tar**: metadata records about research data (includes the subtypes listed here)
- software.tar**: metadata records about research software (includes the subtypes listed here)
- otherresearchproduct_[part].tar**: metadata records about research products that cannot be classified as research literature, data or software (includes types of products listed here)
- organization.tar**: metadata records about organizations involved in the research life-cycle, such as universities, research organizations, funders.
- datasource.tar**: metadata records about data sources whose content is available in the OpenAIRE Graph. They include institutional and thematic repositories, journals, aggregators, funders' databases.
- project.tar**: metadata records about project grants.
- relation_[part].tar**: metadata records about relations between entities in the graph.
- communities_infrastructures.tar**: metadata records about research communities and research infrastructures

Each file is a tar archive containing gz files, each with one json per line. Each json is compliant to the schema available at <https://doi.org/10.5281/zenodo.10519039>. The documentation for the model is available at <https://graph.openaire.eu/docs/data-model/>

Learn more about the OpenAIRE Graph at <https://graph.openaire.eu>.

16K VIEWS 11K DOWNLOADS

Show more details

Versions

Version 7.0.0	Jan 16, 2024
10.5281/zenodo.10480385	
Version 6.0.0	Oct 27, 2023
10.5281/zenodo.10037121	
Version 6.0.0	Aug 8, 2023
10.5281/zenodo.8217359	
Version 5.0.0	Dec 30, 2022
10.5281/zenodo.7745773	
Version 5.0.0	Dec 30, 2022
10.5281/zenodo.7488618	

View all 11 versions

Cite all versions? You can cite all versions by using the DOI 10.5281/zenodo.3516917. This DOI represents all versions, and will always resolve to the latest one. Read more.

Access the OpenAIRE Graph dataset through [OpenAIRE API](#) or

Download the [Graph dataset](#) on Zenodo

Discovery

Bibliometrics

OS Monitoring

Note: While the dataset is open and free to all, it requires a significant amount of processing power to handle the entirety of its data. If you don't possess such capacities, you can access parts of the Graph via the [Beginner's Kit](#)

Resources

DISCOVER

Explore Data



ASSESS

**Use in
Bibliometrics**



MONITOR

**Track
Research**



COLLABORATE

**Build
Research
Gateway**



DISSIMINATE

**Embed
Research
Info**



*All the ways you
can Use the Graph*

*...and Contribute to
the Graph*

SHARE

**Publish in
Open
Access**



CLAIM

**Annotate
data**



INTEGRATE

**Share
funding data**



INTEROPERATE

**Register
your data
source**



KNOW THE COSTS

Share APCs

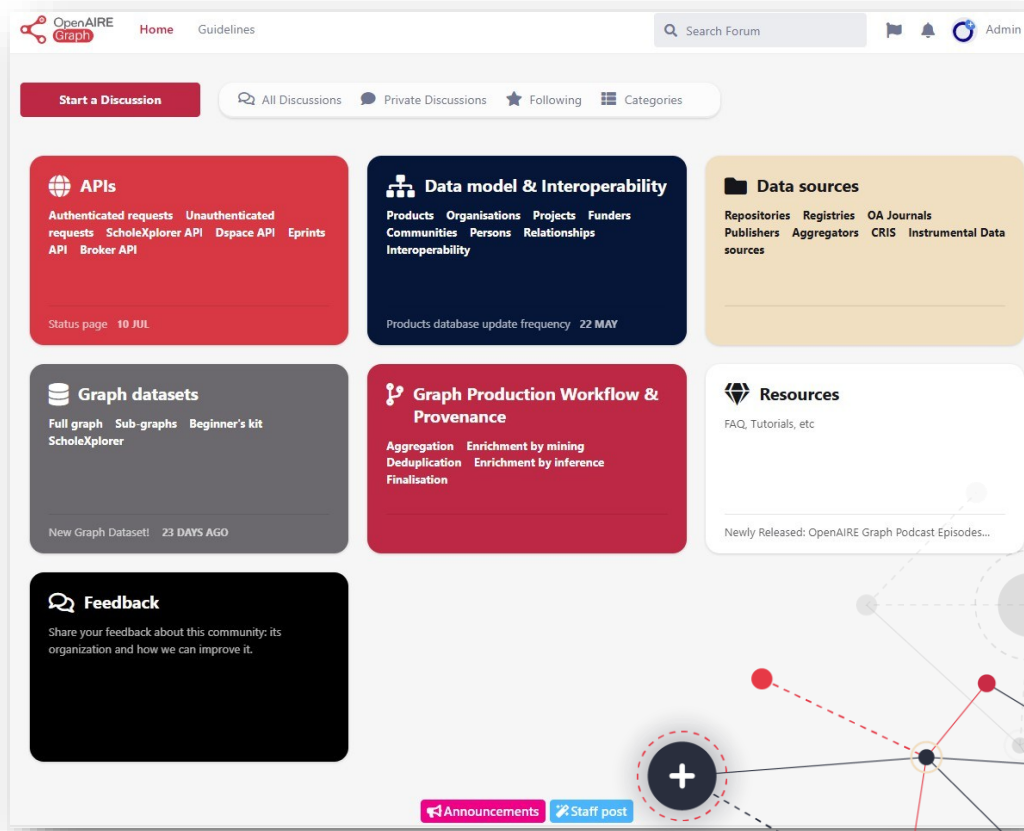




Join our User Forum

A space for Graph users to discuss functionalities, share insights, ask questions, and learn together

openaire.flarum.cloud



OpenAIRE Graph Community Calls

New Developments, Use Cases & API, How it Works

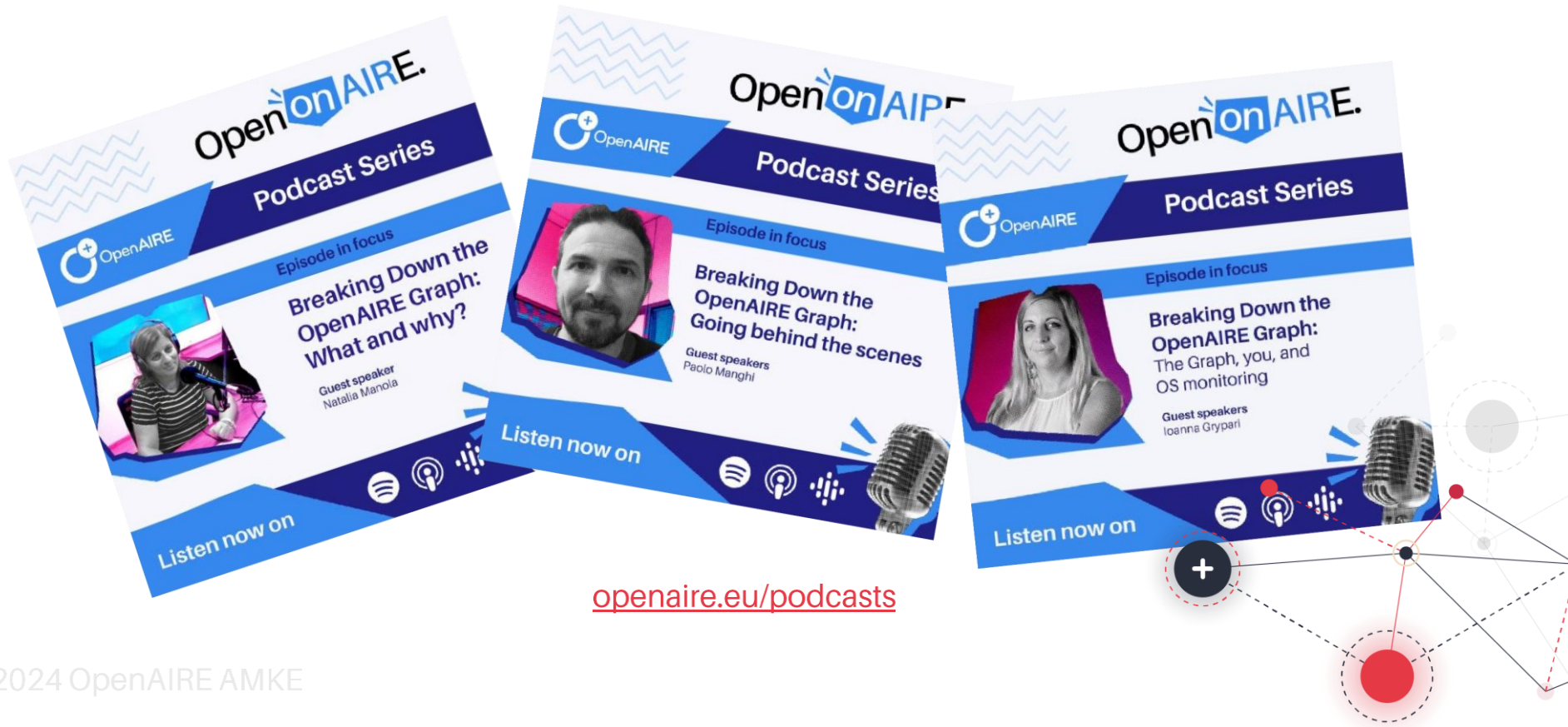
Are you interested in the OpenAIRE Graph and how to use it? Are you a **developer, computer scientist, or research data analyst or scientist?**

Join the conversation in our dedicated Community Calls. We want to hear from you!



EVERY MONTH
ON THE THIRD WEDNESDAY
11:00 CET

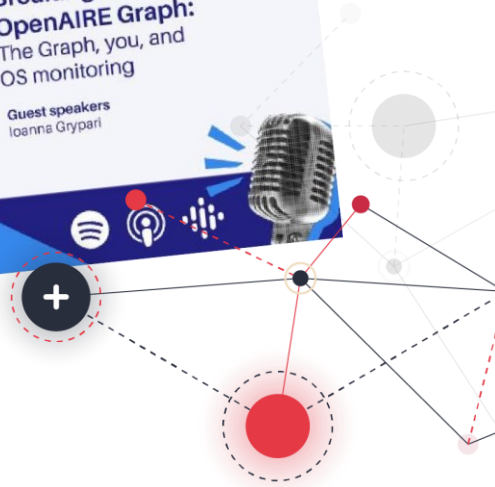
Podcast miniseries on the OpenAIRE Graph



The image displays three overlapping promotional cards for the 'Open on AIRE. Podcast Series'. Each card features the OpenAIRE logo, the series title, an 'Episode in focus' title, a guest speaker photo and name, and a 'Listen now on' section with podcast platform icons and a microphone graphic.

- Card 1 (Left):**
 - Episode in focus: **Breaking Down the OpenAIRE Graph: What and why?**
 - Guest speaker: **Natalia Manciola**
- Card 2 (Middle):**
 - Episode in focus: **Breaking Down the OpenAIRE Graph: Going behind the scenes**
 - Guest speakers: **Paolo Manghi**
- Card 3 (Right):**
 - Episode in focus: **Breaking Down the OpenAIRE Graph: The Graph, you, and OS monitoring**
 - Guest speakers: **Ioanna Grypari**

openaire.eu/podcasts



A network diagram in the bottom right corner shows a central node connected to several other nodes. One node is highlighted with a red circle and a red plus sign, indicating a specific point of interest or a new addition to the network.



Graph Portal

<https://graph.openaire.eu/>

User Forum

<https://openaire.flarum.cloud/>

Support

<https://graph.openaire.eu/helpdesk>

Email

stefania.amodeo@openaire.eu

Twitter

[@OpenAIREGraph](https://twitter.com/OpenAIREGraph)

THANKS

