4 SCIENCE

SHARE YOUR KNOWLEDGE

Your today's research is tomorrow's science: manage it, preserve it, share it. Now.

Susanna Mornati, 4Science

Open Research Information & Data Management Tools: DSpace-CRIS and the Evolution of Institutional Repositories

OpenAIRE National Workshop 2018, Cyprus 9° May



4Science is a company providing open IT solutions for Research and Cultural Heritage.

Our expert team has been working for Open Science since thirty years.









We support institutions making open solutions available, free from licenses and maintained by international communities, to enhance the sustainability of research information and data and the cultural heritage























OpenAIRE is an extraordinary initiative of the European Union

https://www.openaire.eu/openaire-tender-calls-winners

The **Repository tools** pilot by 4Science aims at increasing the **interoperability features** supported by the most widely used platforms in the open science ecosystem.

The project focuses on **two** main topics:

- Implementation and customization of new protocols;
- Implementation of OpenAIRE metadata guidelines and OpenAIRE-APIs interaction.

In particular, 4Science will implement the following **tools** for Literature Repositories, Data Repositories, Journals platforms, and CRIS/RIMS (such as DSpace, Dataverse, OJS and DSpace-CRIS):

- Signposting patterns in OJS;
- ResourceSync framework in DSpace;
- OpenAIRE Guidelines for Data repositories in Dataverse and DSpace-CRIS;
- OpenAIRE project API in DSpace-CRIS.

These new protocols were selected based on <u>recent recommendations by COAR</u>.







DSpace and "extended" DSpace

- DSpace is the most popular free open source Digital Asset Management System in the world, used for Institutional Repositories to manage publications...
- ...but more and more HE and Research Institutions are asking for Research Information & Data Management tools

 Why not using an "extended" version of DSpace to meet these two relevant needs?

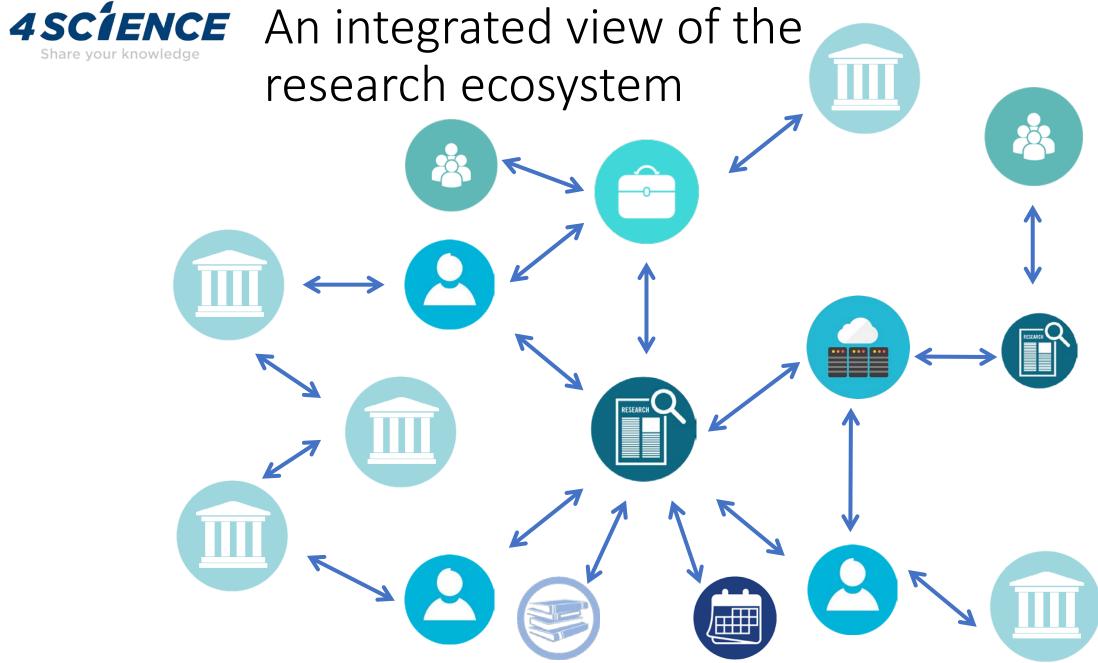


DSpace-CRIS

- In 2009, the team now at 4Science led by Susanna Mornati and Andrea Bollini, together with the team at Hong Kong University led by David T. Palmer, created DSpace-CRIS
- https://wiki.duraspace.org/display/DSPACECRIS/DSpace-CRIS+Home (documentation)
- DSpace-CRIS is an "extended" version of DSpace, with a powerful and flexible data model to describe not just publications, but all the entities that populate the research environment and their meaningful links
- https://dspace-cris.4science.it/ (demo)





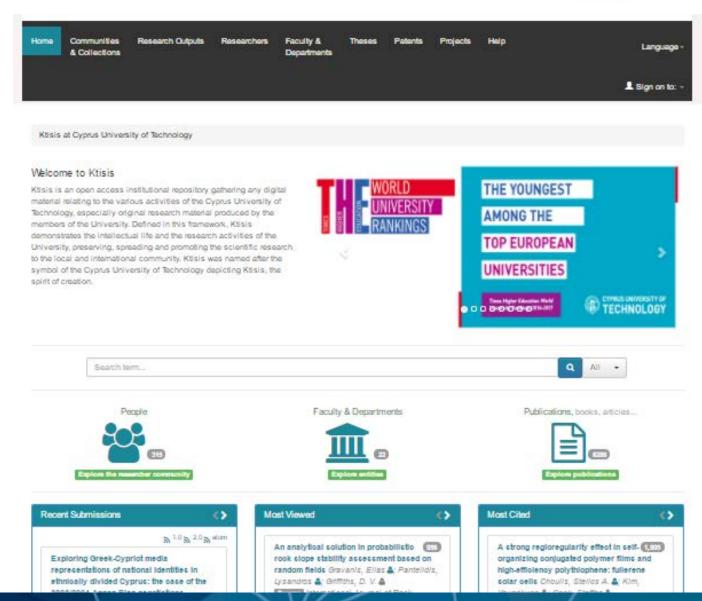




DSpace-CRIS: make it beautiful



- State-of-art technology for your UI (next: version 7 with AngularJS UI)
- Adaptive, responsive
- Icons for intuitive exploration
- Widgets for most viewed, most cited, etc.





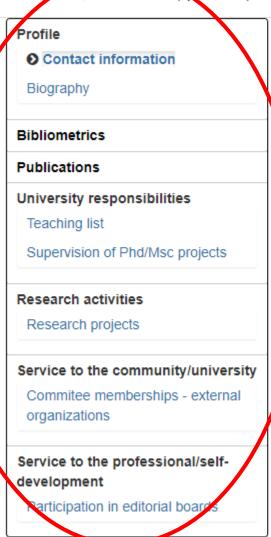
DSpace-CRIS use cases: an item

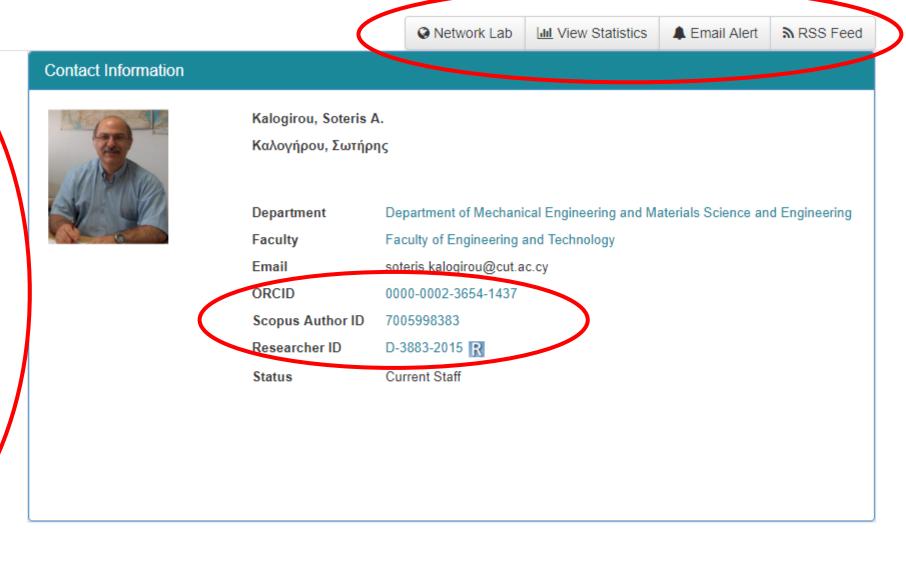
Ktisis at Cyprus University of Technology / Cyprus University of Technology Repository / Άρθρα/Articles Please use this identifier to cite or link to this item: http://ktisis.cut.ac.cy/handle/18488/7613 A strong regionegularity effect in self-organizing conjugated polymer films and high-efficiency polythiophene: fullerene Title: SCOPUS^{IM} solar cells Citations 1.805 Authors: Choulis, Stelios A. . checked on Apr 8, 2017 Kim, Youngkyoo 🏝 Cook, Steffan A WEB OF SCIENCE™ Keywords: Polymers Citations Nanostructured materials 1.759 Plastic films checked on May 11, 2017 Solar cells Issue 2006 Date: Page view(s) 234 1 Publisher: Nature Last Week Last month Nature materials, 2006, Volume 5, Issue 3, Pages 197-203 Source: checked on Jun 12, 2017 The influence of polymer regioregularity (RR) on the molecular nanostructure, and on the resulting material properties Abstract: and device performance was analyzed. Annealed blend films show increased α regardless of RR, that indicates improved charge-carrier diffusion. It was found that the highest device efficiencies will be achieved with the highest Google Scholar^{1M} RR P3HT. It was also found that the dark-current density of as-fabricated devices made with pristine P3HT increases Check with the RR of POLIT in the higher voltage regime http://ktisis.cut.ac.cy/handle/10488/7613 URI: Altmetric ISSN: 1476-1122 (print) 1476-4660 (online) DOI: 10.1038/nmat1574



4SCIENCE DSpace-CRIS use cases: a researcher

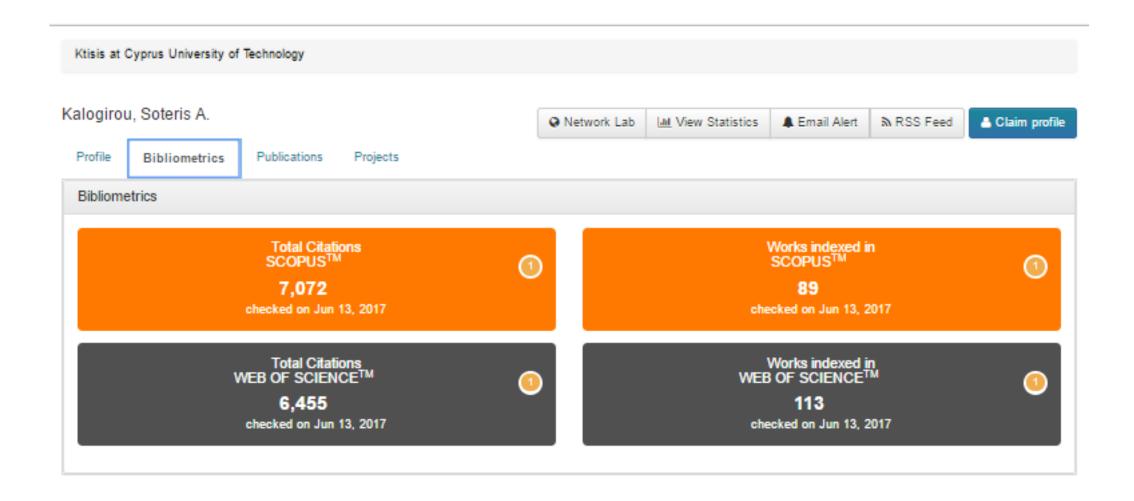
Kalogirou, Soteris A. (rp00110)





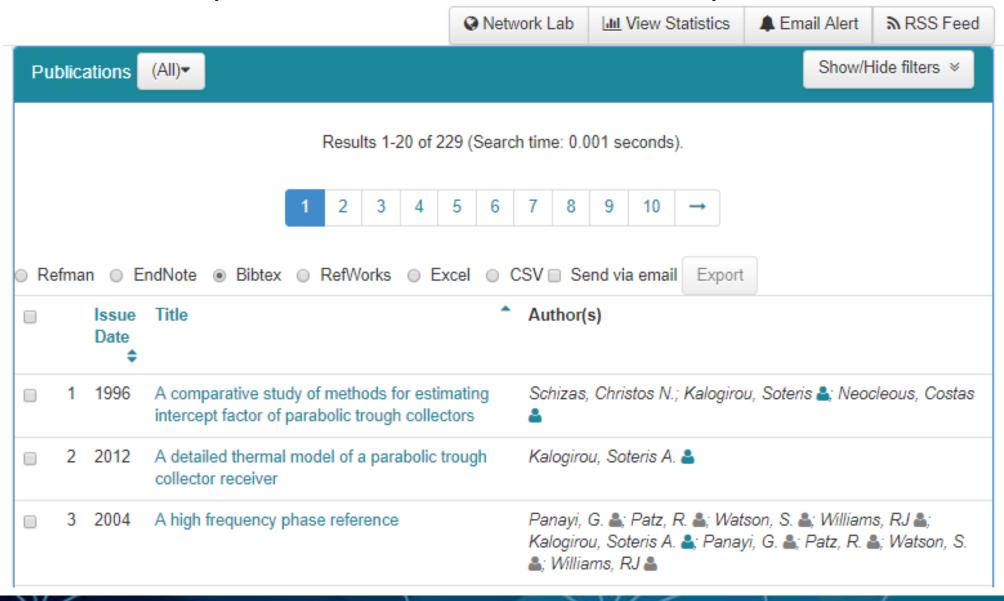


DSpace-CRIS use cases: metrics





DSpace-CRIS use cases: publications





DSpace-CRIS use cases: projects

Building-integrated fibre-reinforced solar technology

Lill View Statistics	♣ Email Alert	₹ RSS Feed
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Primary Data

Project title Building-integrated fibre-reinforced solar technology Code

BFIRST

Project Coordinator Kalogirou, Soteris A.

Start date 01-05-2012

Expected Completion 30-04-2016

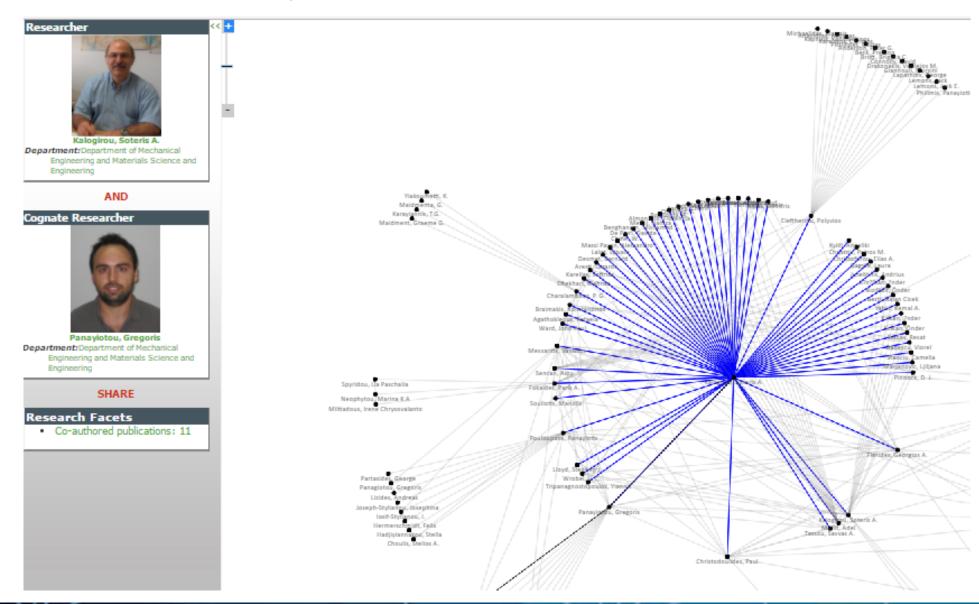
Description

Abstract

Photovoltaics (PV) has experimented an exponential increase in the last 10 years and this trend is expected to continue with the support of feed-in-tariff policies in some countries and the on-going production costs reduction. The situation for building-integrated photovoltaics (BIPV) is, however, radically different from that of general PV industry. Despite the impressive figures for the photovoltaic market, current deployment for BIPV applications has still a large room for improvement. New products must be developed in order to overcome technical and non-technical barriers for BIPV at a European scale. A higher degree of standardization is needed in order to facilitate the labour of architects and engineers. A complete characterisation of the products, at laboratory, experimental building and real building scale and the development of extensive product catalogues with exhaustive product performance description are essential in order to encourage the incorporation of BIPV products into construction works. Finally, carefully planned dissemination strategies are important to contribute to a wider knowledge of the technology and its possibilities by all the parties involved in BIPV. The aim of BFIRST project is the development and demonstration of a set of standardised, multifunctional photovoltaic building components based on a recently developed technology for solar cells encapsulation within glass fibre-reinforced composite materials. By means of this new technology, cell encapsulation within composite materials takes place in a single step, yielding a self-supporting, monolithic and lightweight photovoltaic module. Curved and complex geometries can be obtained, opening a wide range of new BIPV products with enhanced building integration possibilities. Moreover, by using a composite material, in which the cells and their connections are completely embedded, the need to use additional materials as a base or covering is eliminated. Protective coating materials can also be added, either onto the mould during the



DSpace-CRIS use cases: network



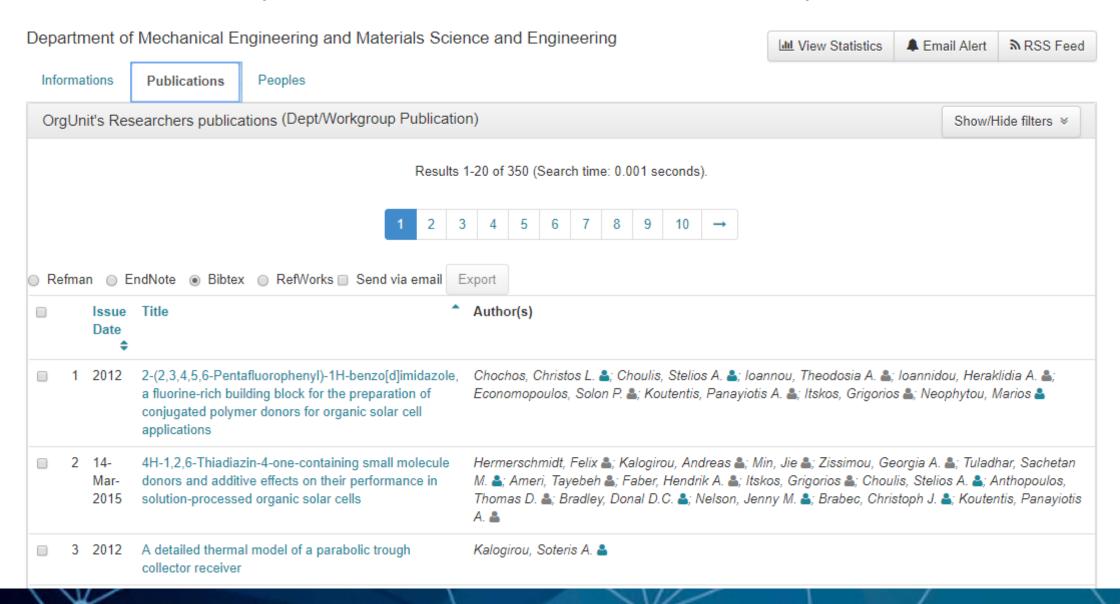


DSpace-CRIS use cases: statistics

Researcher Profile Statistics: Kalogirou, Soteris A. Change date range View Count Download Count Item View Count Item Download Count RSS Feed . ▲ Email Alert ▼ Estonia Mappa Satelito Lettonia Mar-del Nord Lituania: Regno Unito Bielorussia Irlanda Polonia Germania Repubblica Cesa Ucraina Slovacchia Ungheria Francia Romania Croazia Google Map data 02017 Google, INEGI, DRION ME | Termini e condizioni d'uso Region Country City Time Save as a PNG Save as a JPEG Southend Nicosia Moscow other Shanghai Mountain View Ashburn Southend Limassol Los Angeles Athens

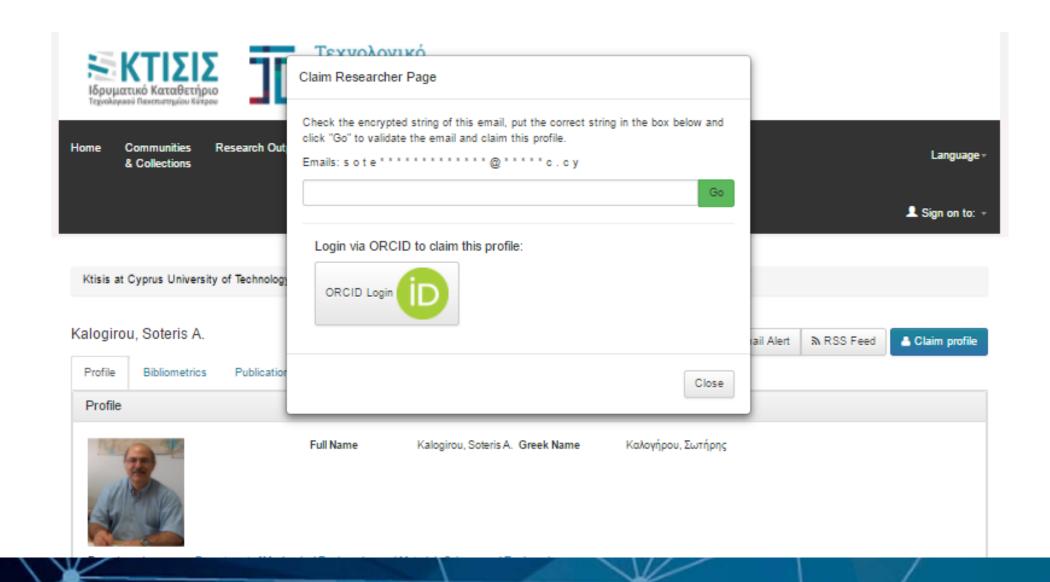


DSpace-CRIS use cases: a department





DSpace-CRIS use cases: claim ORCID profile







Connecting Research and Researchers

FOR RESEARCHERS

FOR ORGANIZATIONS

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HELP

SIGN OUT

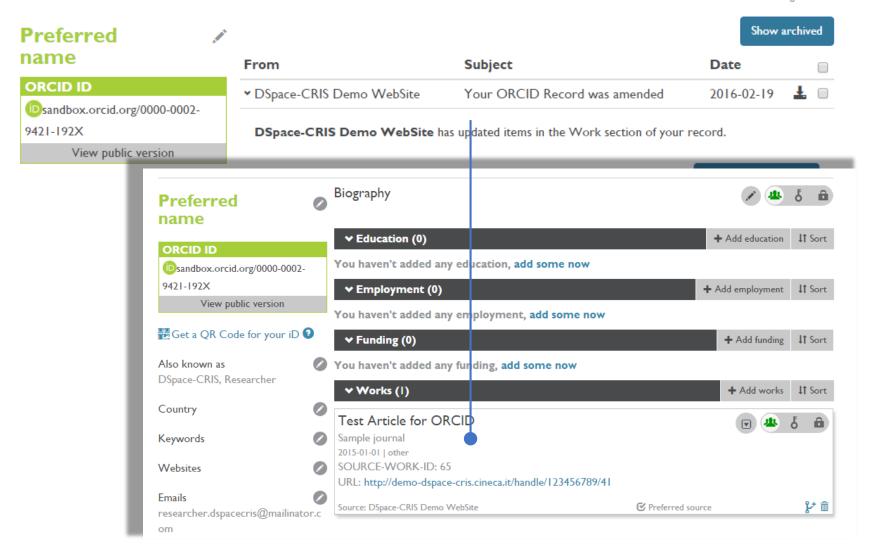
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ACCOUNT SETTINGS

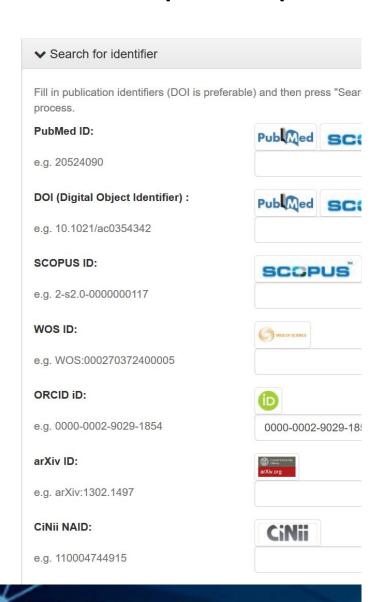
DEVELOPER TOOLS

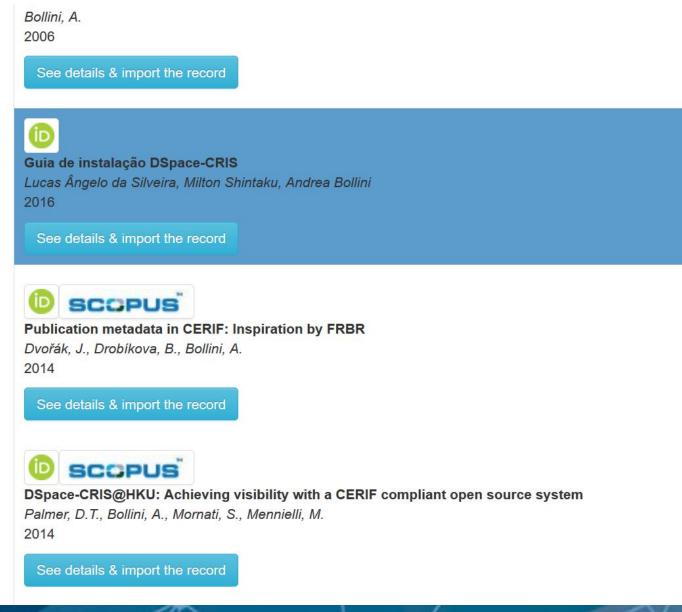
42,377 ORCID iDs and counting. See more...





Import publications from ORCID





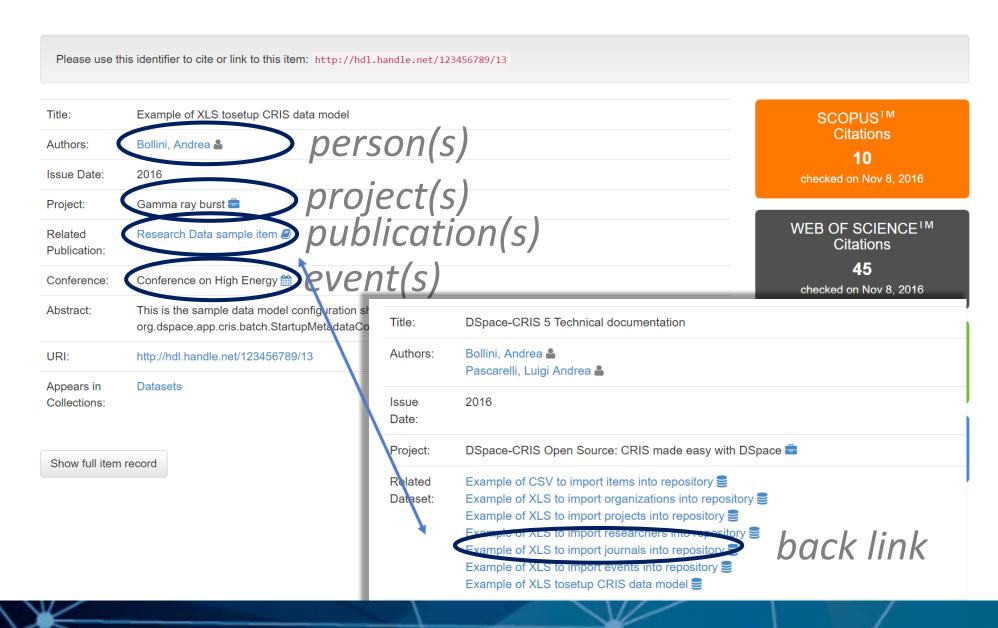


DSpace-CRIS: interoperability

- Save your researcher's time and provide records from ORCiD,
 PubMed, PubMed Europe, Scopus, WebOfScience, ArXiv, CrossRef and more... also as automatic feeds
- Import information from master legacy systems such as HR, export information to your data warehouse or your analytics solution, integrate your DSpace-CRIS with the institutional Identity Management system to control authentication and authorization, and so on...
- Import bibliometric information automatically from Scopus and Web of Science or from any other sources using spreadsheets

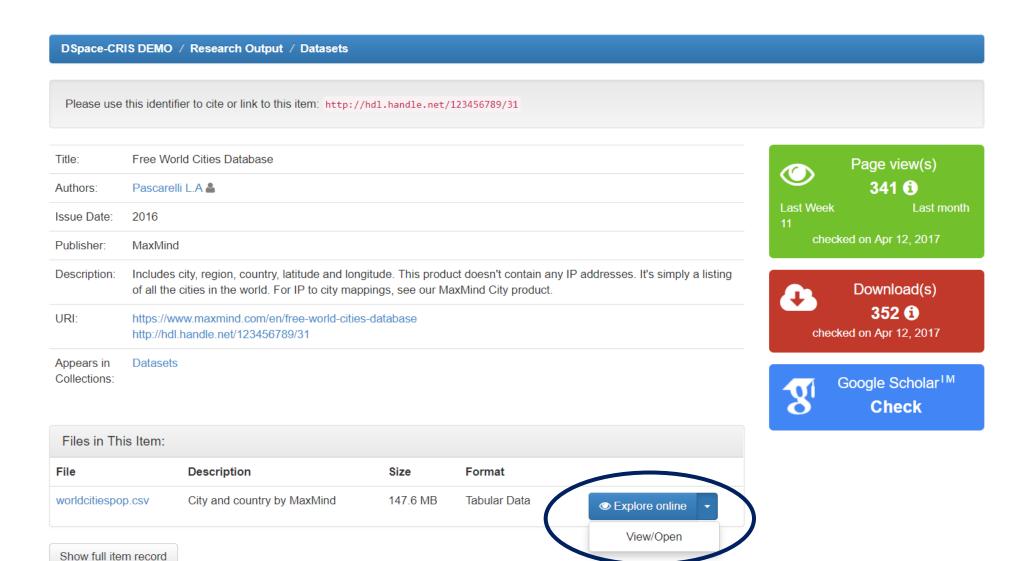


DSpace-CRIS use cases: identifiers and links





4SCIENCE DSpace-CRIS use cases: Research Data





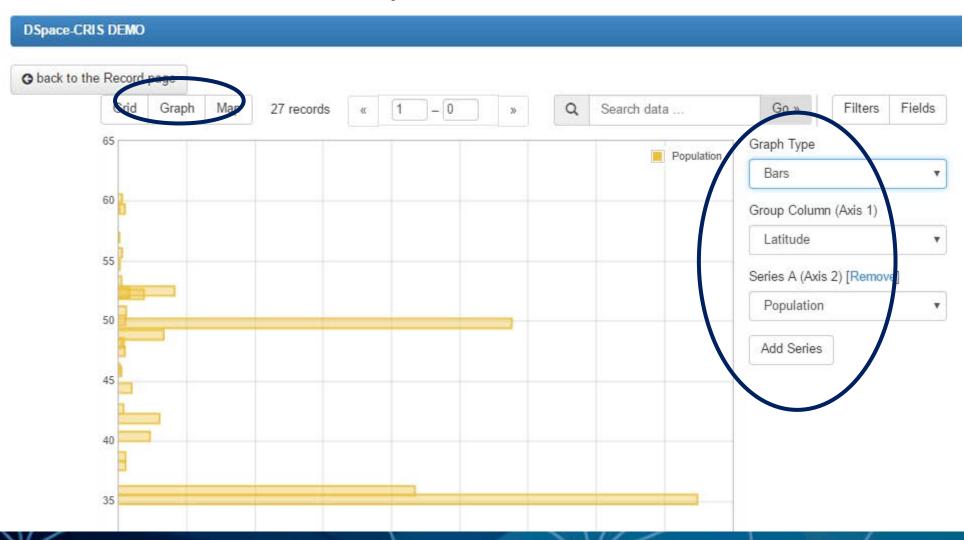
CKAN Add-On Module: preview tabular & geospatial data *Paginated and filterable*





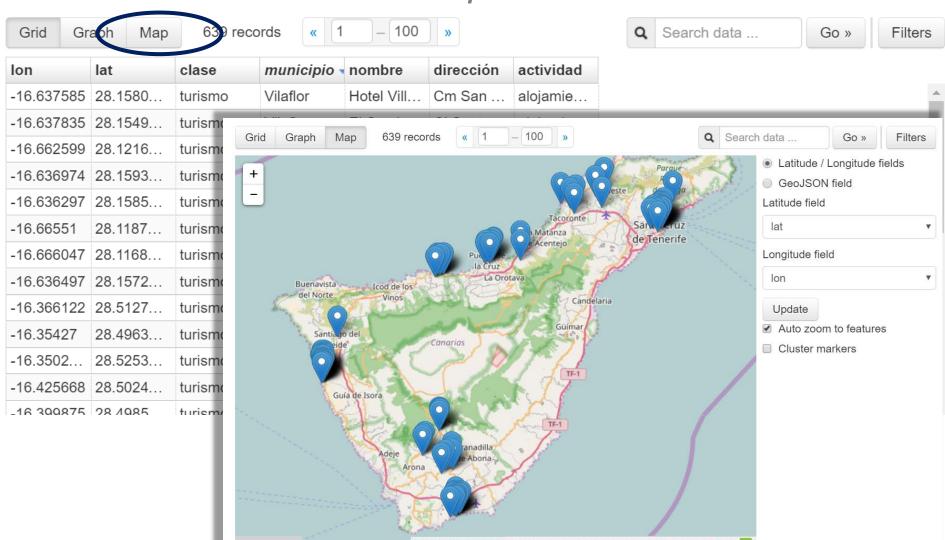
CKAN Add-On Module: preview tabular & geospatial data

Graph visualization



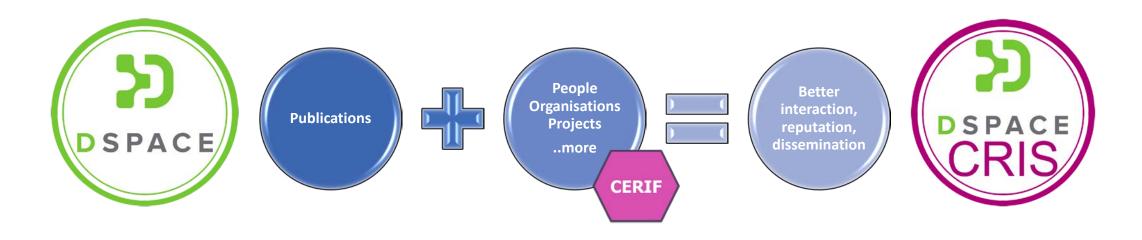


CKAN Add-On Module: preview tabular & geospatial data Interactive map visualization





DSpace-CRIS in a nutshell



Versions 5 & 6 available on GitHub



The only free opensource CRIS,
maintained in the
context of a vast and
authoritative
worldwide
community

Documentation and software available on the DSpace Wiki:

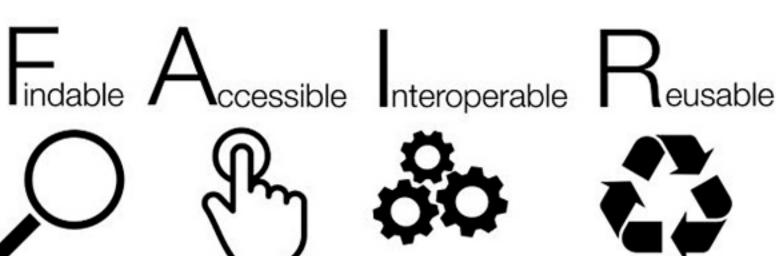
https://wiki.duraspac
e.org/display/DSPACE
CRIS/DSpace-
CRIS+Home



Conclusions

Make your research FAIR with DSpace-CRIS!







Where to find us next?

OR 2018
Bozeman MT
USA
4-7 June

Thanks for your attention!

www.4science.it

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linkedin: susannamornati

orcid: 0000-0001-9931-3637

And more to come!

German DSpace
User Group
Meeting
Berlin
Sept 2018

CRIS 2018 Umea Sweden 13-16 June

DSpace-CRIS
Workshop
and User Group
Meeting
Umea, Sweden
13 June