

DSpace-CRIS: new features and contribution to the DSpace mainstream

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DSpace and "extended" DSpace

- DSpace is the most popular Digital Asset Management System in the world
- 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: what?

 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

 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



DSpace-CRIS: why?

- Buying a commercial platform to manage Research Information (a CRIS or RIMS) is expensive and binds your institutions to a proprietary system
- DSpace-CRIS is free, open source, compliant with open standards, and provides your institution with a sustainable and effective tool to manage research information such as researchers' profiles, department pages, project grants & awards, research outputs, metrics, reports and statistics



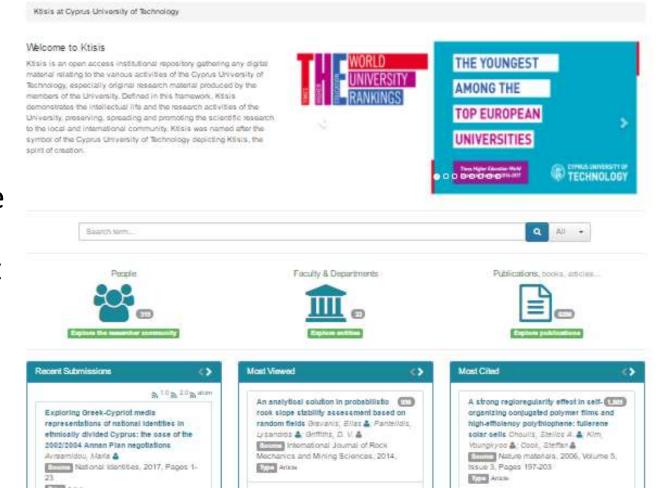
An integrated view of the research

DSpace-CRIS: make it beautiful

Communities

Research Outputs

- 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.



Language

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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

Title: A strong regioregularity effect in self-organizing conjugated polymer films and high-efficiency polythiophene: fullerene

solar cells

Authors: Choulis, Stelios A. &

Kim, Youngkyoo & Cook, Steffan &

Keywords: Polymers

Fullerenes

Nanostructured materials

Plastic films Solar cells

Issue Date: 2006

Publisher: Nature

Source: Nature materials, 2008, Volume 5, Issue 3, Pages 197-203

Abstract:

The influence of polymer regionegularity (RR) on the molecular nanostructure, and on the resulting material properties 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 RR P3HT. It was also found that the dark-current density of as-fabricated devices made with pristine P3HT increases with the RR of P3HT in the higher voltage regime

URI: http://ktisis.cut.ac.cy/handle/10488/7613

ISSN: 1476-1122 (print) 1476-4660 (online)

DOI: 10.1038/nmat1574

SCOPUS^{1M} Citations



checked on Apr 8, 2017

WEB OF SCIENCE^{1M} Citations

1,759 1

checked on May 11, 2017

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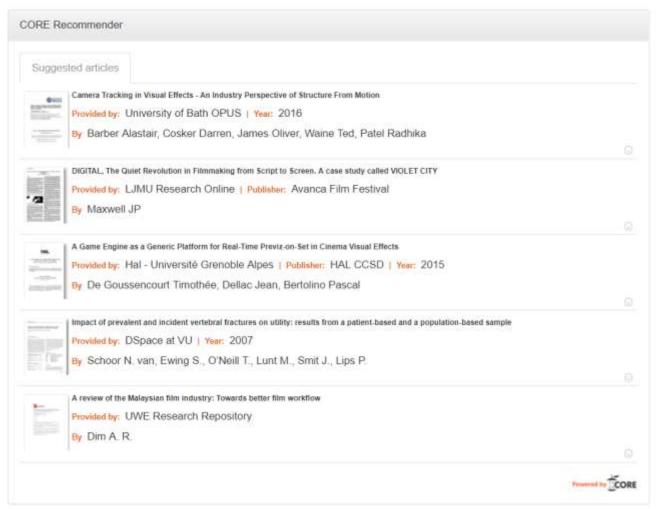


Google Scholar^{IM}
Check



Altmetric

CORE Recommender for Items [NEW]

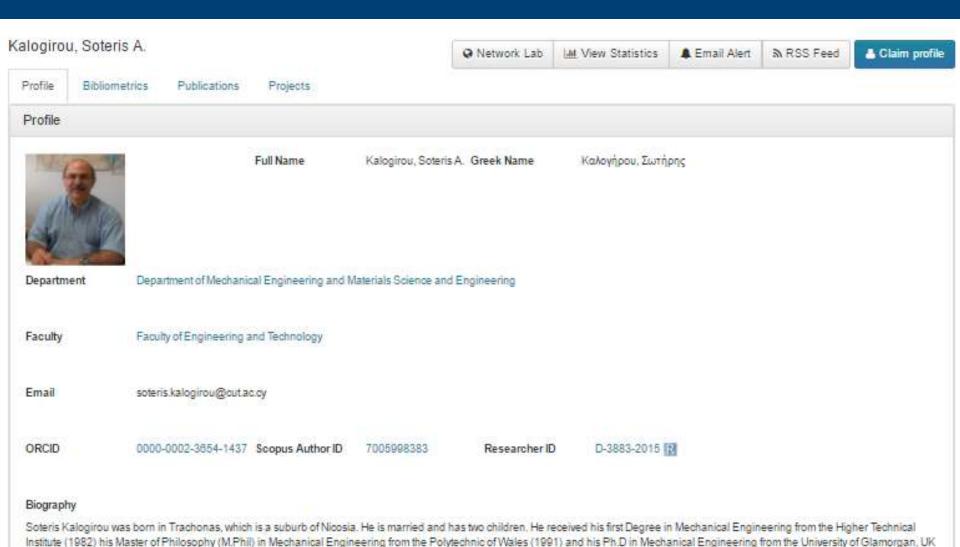




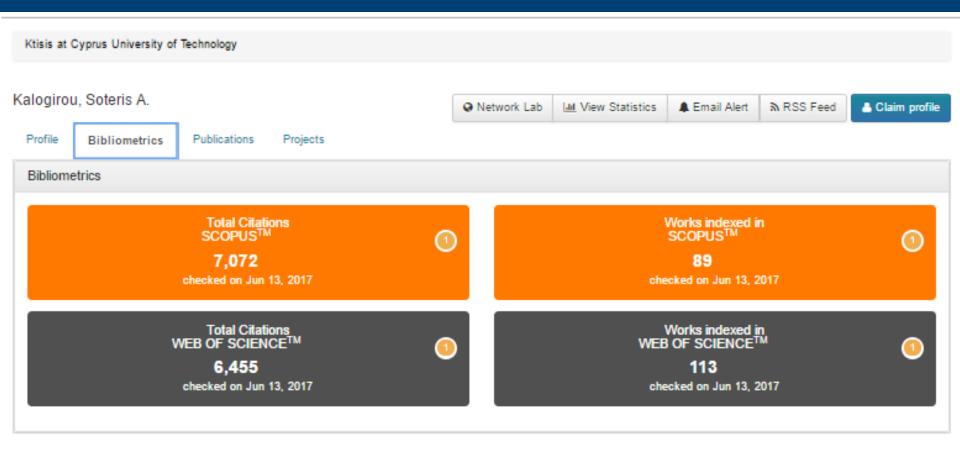
New features in DSpace-CRIS 6 [& 5.7]

- Signposting is an approach to make the scholarly web more friendly to machines, exposing relations as Typed Links in HTTP Link headers
- The following patterns are supported in DSpace-CRIS (to finalize):
 - Author: links to authors ORCID or VIAF records
 - Identifier: link to ORCID from DSpace-CRIS researcher pages, link to the Handle/DOI from the landing page or fulltext (PDF, etc.)
 - Publication Boundary: links to the actual fulltext from the landing page

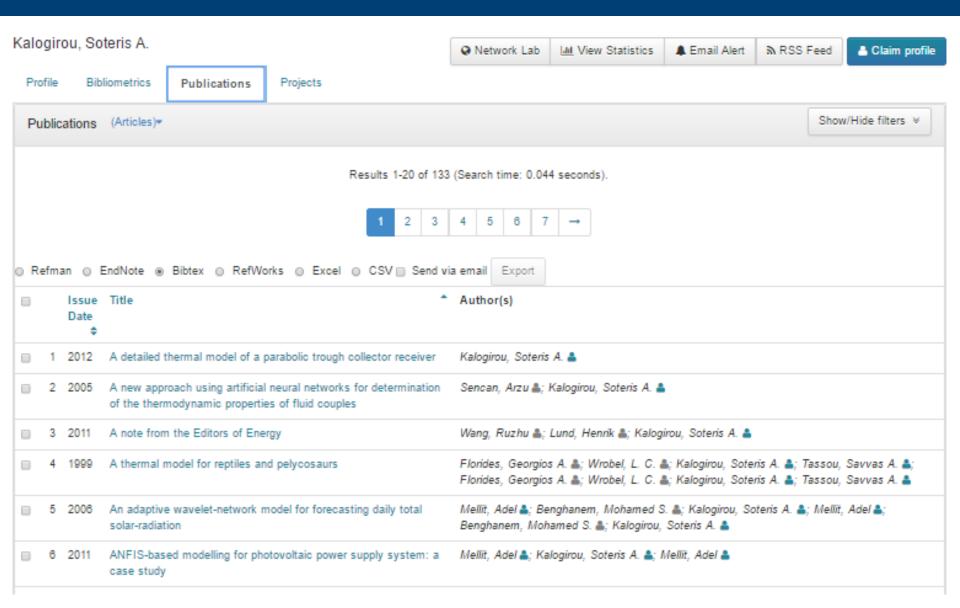


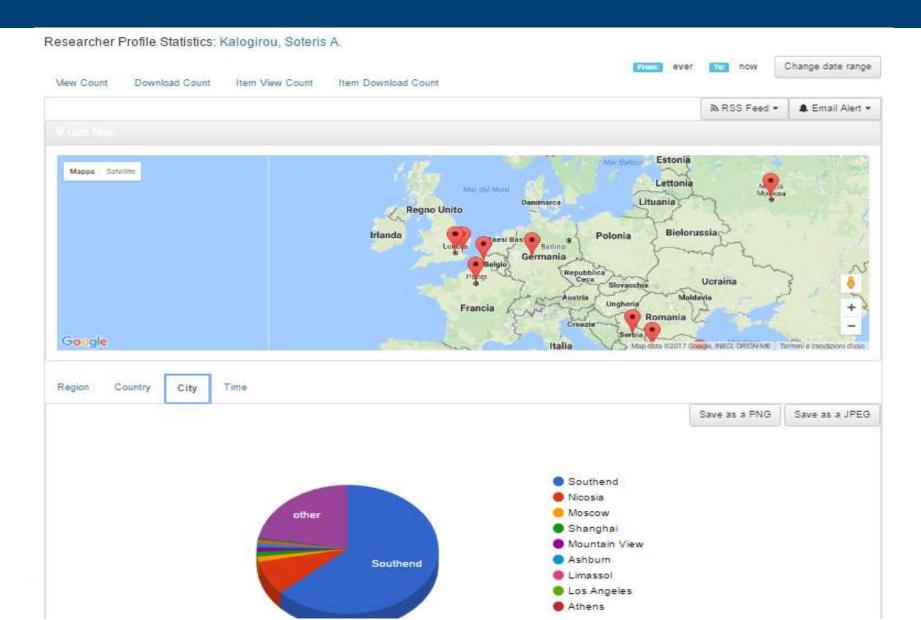


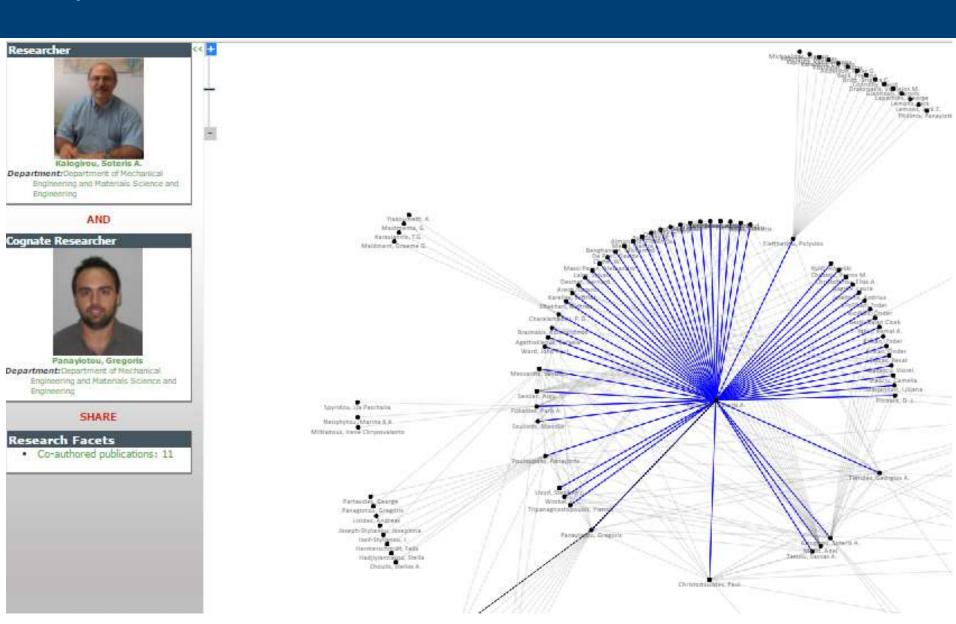
(1995). In June 2011 he was awarded from the University of Glamorgan, UK the title of D.Sc. He was employed as a Building Services Consultant by the firm Intersol Engineering from 1982-1987, and in various positions in the Mechanical Engineering and Engineering Practice Departments of the Higher Technical Institute from 1987 to 2007. In 2008 he was transferred to the Cyprus University of Technology and now he is a Senior Lecturer in Mechanical Engineering. He is considered internationally as an expert in the field of solar thermal collectors and to the use of artificial intelligence techniques for the performance prediction of energy and renewable energy systems. He is member of CIBSE (Chartered Institution of Building Services Engineers).

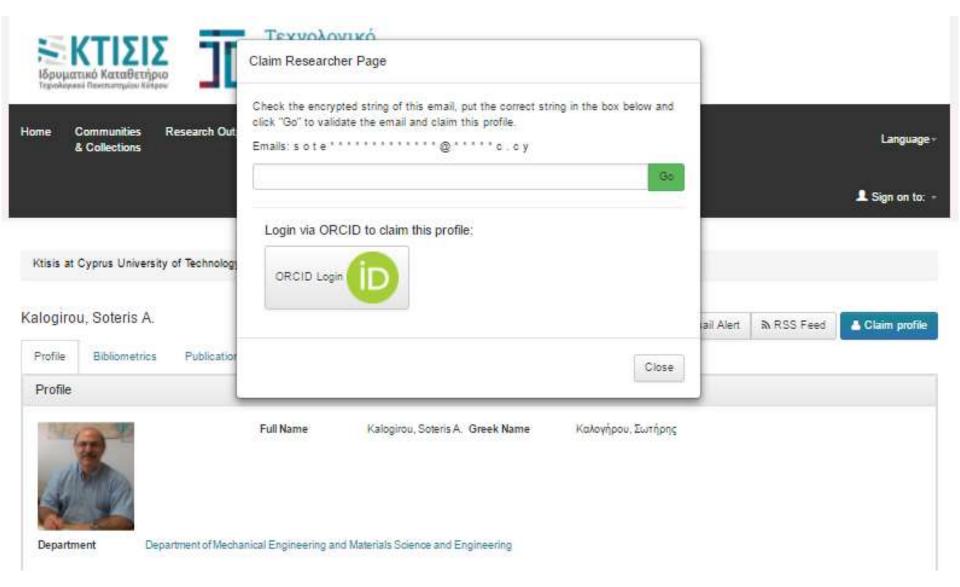


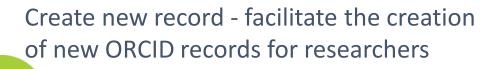












Connect local profile with the ORCID registry



Lookup the registry

Transfer information from the repository to the ORCID Registry and viceversa



Login via ORCID iD also for external co-authors (if liked)







Connecting Research and Researchers FOR RESEARCHERS

FOR ORGANIZATIONS

ABOUT

HELP

SIGN OUT

MY ORCID RECORD

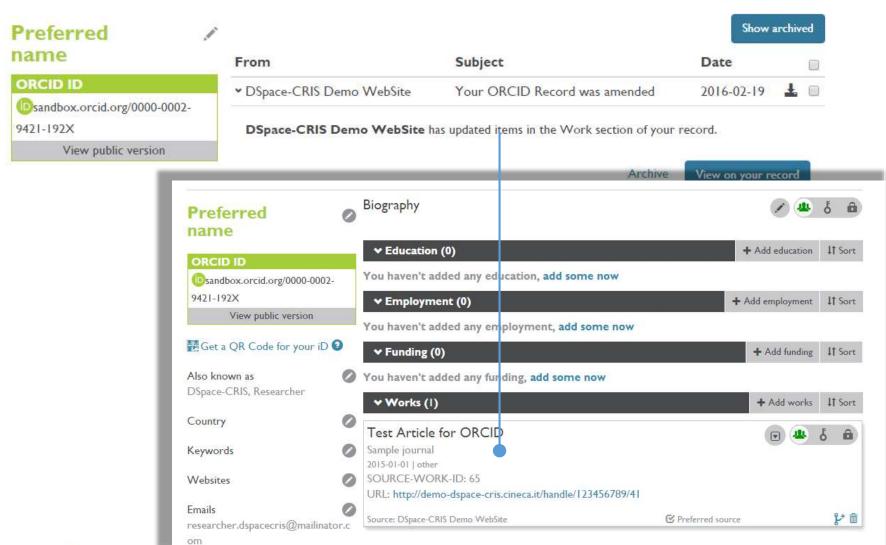
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ACCOUNT SETTINGS

DEVELOPER TOOLS

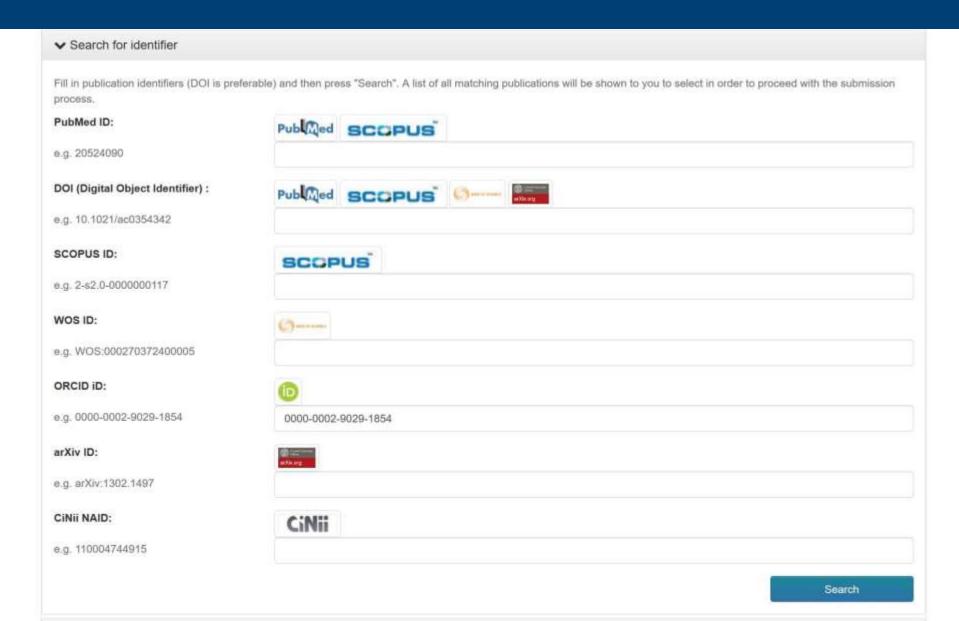
LEARN MORE

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





Import publications from ORCID (NEW)



Import publications from ORCID (NEW)

Bollini, A. 2006

See details & import the record



Guia de instalação DSpace-CRIS

Lucas Ângelo da Silveira, Milton Shintaku, Andrea Bollini 2016

See details & import the record



Publication metadata in CERIF: Inspiration by FRBR

Dvořák, J., Drobíkova, B., Bollini, A. 2014

See details & import the record



DSpace-CRIS@HKU: Achieving visibility with a CERIF compliant open source system Palmer, D.T., Bollini, A., Mornati, S., Mennielli, M. 2014

See details & import the record

Full integration with ORCiD, pull and push APIs for all entities:
Profiles
Publications
Projects

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 source using spreadsheet



DSpace-CRIS: interoperability [NEW]

 Connect to VIAF records and Getty Vocabularies for precise identification of person, artists and places

Getty Thesaurus of Geographic Names		
Place (TGN)	Brisbane	
	Brisbane [Grant, North Dakota, World]	
Please give the date of previous	Brisbane [Will, Illinois, World]	able.
Date of issue	Brisbane [Nevada, Arkansas, World]	
	Brisbane [San Mateo, California, World]	
	Brisbane Water [New South Wales, Australia, World]	
Enter the name of the publisher of	Brisbane [Queensland, Australia, World]	
Publisher		

It has been reported to work nicely with «plan»
 DSpace, just get the authority implementation. Plan to include it out-of-box in DSpace 7

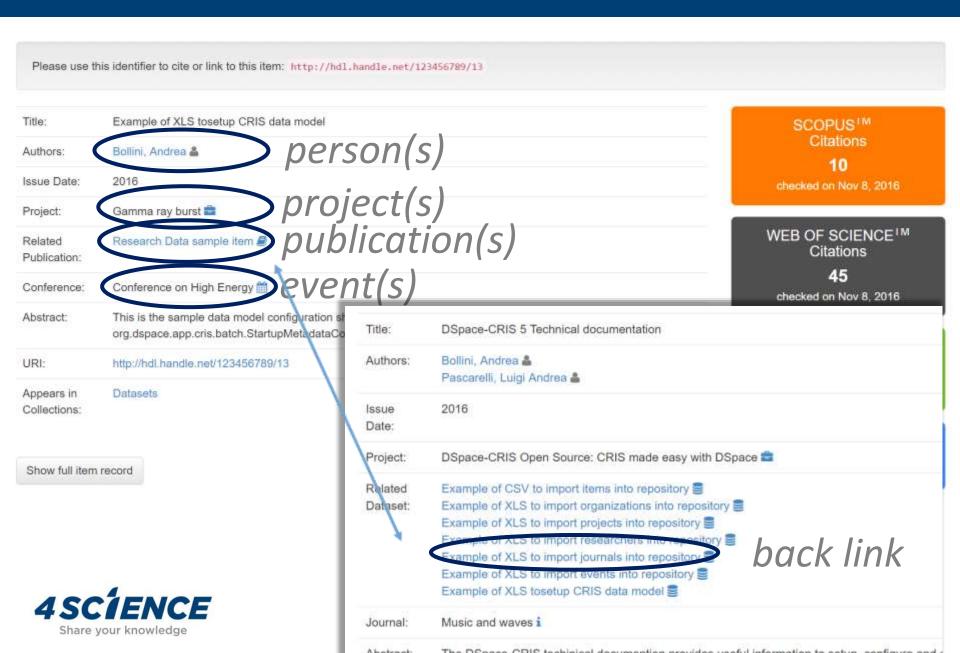


DSpace-CRIS use cases: identifiers

A flexible but robust data model that leverages persistent identifiers, wherever possible, to create unambiguous and navigable relations among all entities: a researcher's ORCiD with his publications / datasets handles / DOIs, journals ISSNs, projects IDs, funders IDs, previous and next versions, and so on...



DSpace-CRIS use cases: identifiers in a dataset



DSpace-CRIS use cases: Research Data

- Recently at 4Science we released, free and open source, an integration with CKAN, the world's leading open-source data management platform
- Using an extendible viewer framework you can now offer data discovery, exploration, preview, sampling and visualization from your DSpace-CRIS repository just by adopting the CKAN add-on!
- CKAN makes open webservices for tabular data available: https://ckan.org/
- DSpace-CRIS & DSpace-CKAN add-on: https://github.com/4Science/dspace-ckan

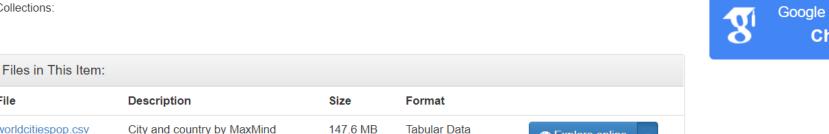


DSpace-CRIS use cases: Research Data

DSpace-CRIS DEMO / Research Output / Datasets

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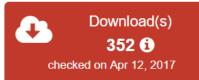
Title:	Free World Cities Database
Authors:	Pascarelli L.A ♣
Issue Date:	2016
Publisher:	MaxMind
Description:	Includes city, region, country, latitude and longitude. This product doesn't contain any IP addresses. It's simply a listing of all the cities in the world. For IP to city mappings, see our MaxMind City product.
URI:	https://www.maxmind.com/en/free-world-cities-database http://hdl.handle.net/123456789/31
Appears in Collections:	Datasets



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Page view(s) 341 1 Last Week Last month checked on Apr 12, 2017







File

worldcitiespop.csv

CKAN Add-On Module: preview tabular & geospatial data

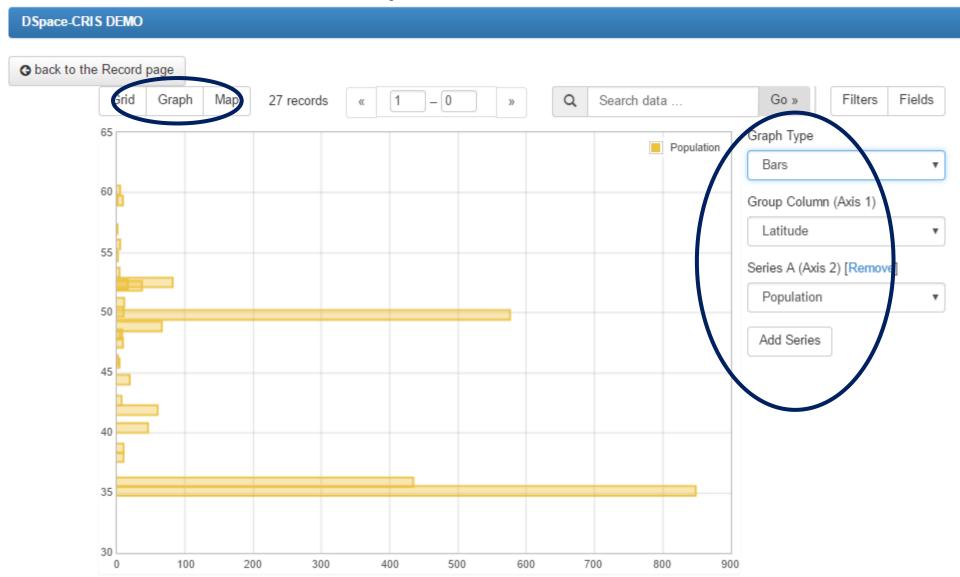
Paginated and filterable





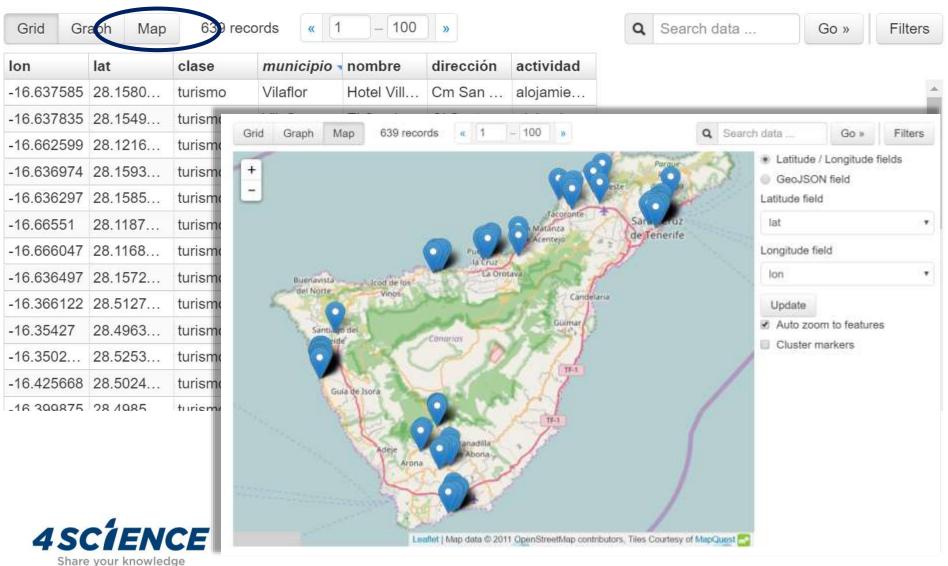
CKAN Add-On Module: preview tabular & geospatial data

Graph visualization

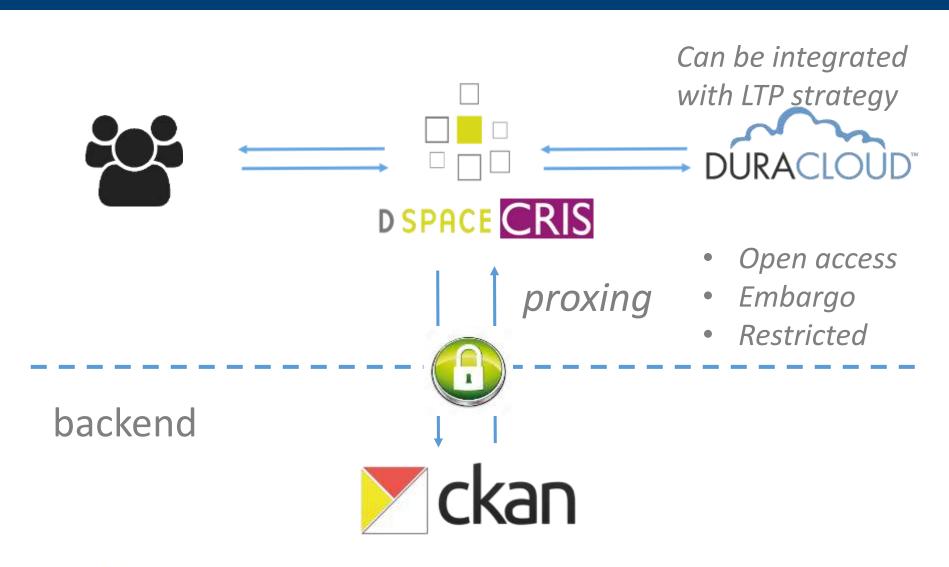


CKAN Add-On Module: preview tabular & geospatial data

Interactive map visualization



CKAN Integration Add-On: architecture





Open Source, get it from GitHub!

DSpace-CRIS use cases: beyond publications

Image files from medicine, astrophysics, cultural heritage (digitalized manuscript, rare books, etc.) need to be consulted online, discussed and commented / annotated

Video and audio files need streaming and similar capabilities

The viewer framework used by the CKAN integration is also used by the 4Science addons to provide IIIF capabilities and audio/video streaming to your repository (also available for standard – not CRIS installation)

More on that standards and solutions in my next presentations (noted at the end of these slides)



DSpace-CRIS: https://digital.csic.es/ Integrated with an internal CRIS



CSIC Research -

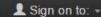
Pasarela

Statistics

Contact

Search DSpace





English español



Welcome to DIGITAL.CSIC, the institutional repository of the Spanish National Research Council.

DIGITAL.CSIC organizes, preserves and provides open access to CSIC research outputs.

DIGITAL.CSIC Annual Reports









I Highlights

- New CSIC Abierto Issue Out [11/05/2017]
 - CSIC Abierto 15 features how CSIC institutes have integrated the repository into their scientific communication strategies so as to maximize impact of their research outputs, enhance dissemination of non traditional research outcomes and test innovative ways to share projects. The issue also includes an interview with Open Access Button team.
- DIGITAL.CSIC Workshop on Open Science [26/04/2017]
 Open Science advocates for making science more collaborative and using new channels and tools to disseminate and share knowledge. Its innovative approach covers the entire research process to increase science quality, transparency and effectiveness and better align it with social challenges. The slides of "Introduction to Open Science" workshop address topics and tools of interest.
- Slides of COAR Controlled Vocabularies Webinar in Spanish [23/03/2017]
 On March 16, 2017 COAR in partnership with La Referencia held the webinar Vocabularios Controlados para Repositorios: Objetivos y Avances del Grupo de Trabajo COAR. The speakers are members of the Editorial Board of this COAR Working Group



DSpace-CRIS: http://www.earth-prints.org/ Ontological approach

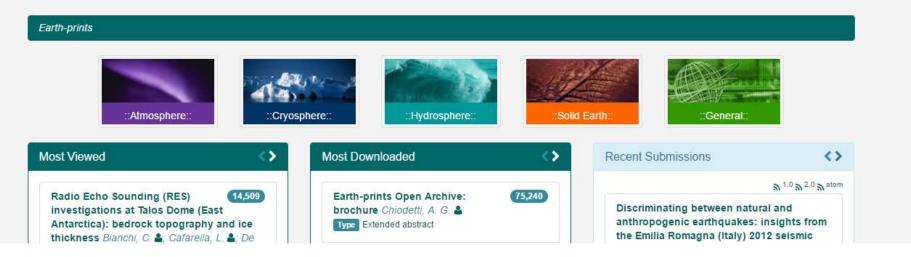


Welcome to the OA Earth-prints Repository!

Earth-Prints is an open archive created and maintained by Istituto Nazionale di Geofisica e Vulcanologia. This digital collection allows users to browse, search and access manuscripts, journal articles, theses, conference materials, books, book-chapters, web products.

The goal of our repository is to collect, capture, disseminate and preserve the results of research in the fields of Atmosphere, Cryosphere, Hydrosphere and Solid Earth. Earth-prints is young and growing rapidly. Check back often.

Please notice that some documents are protected by institutional policy. Please contact the authors for additional information.





DSpace-CRIS as a National Portal in Catalunya: http://portalrecerca.csuc.cat/



Collecting data about researchers, organizations, projects, publications from all the Catalan Universities

Run by the Consorci de Serveis Universitaris de Catalunya as a national service to raise visibility and awareness about Catalan Research



DSpace-CRIS: how?

 Every institution can upgrade their DSpace installation to DSpace-CRIS, extending the management of research publications by creating new entities such as Researchers and Projects

 Your publications will be safely managed as before, adding the advantage of linking them to relevant information such as authors, datasets, projects, metrics, networks, statistics and much more



DSpace-CRIS: when?

- Now: every moment is appropriate to enhance your repository, to support your research community and make your service more relevant for the institutional strategy
- Upgrading from DSpace to DSpace-CRIS or installing a brand-new "extended" repository does not take much extra effort and it is largely rewarded by the extraordinary results that you can get
- As an extra security DSpace-CRIS doesn't alter the structure of the current DSpace managed Entity so you can turn back from DSpace-CRIS to DSpace at any time just dropping (a lot of) extra tables...honestly, I'm not sure you'll want to do that ☺



DSpace-CRIS in a nutshell



Version 5.7 RC & 6 RC available now on GitHub Participate in our Testathon! http://test.dspace-cris.4science.it

More than 80 DSpace-CRIS installations worldwide:
Asia | North America | South America | Europe | Australia | Africa

The only open-source CRIS, maintained in the context of a vast and authoritative worldwide community.

Documentation and software available on the DSpace Wiki:



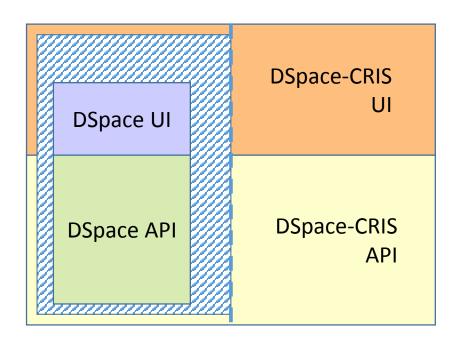
DSpace-CRIS: roadmap

- Functional improvements for both 5.x & 6.x:
 - Switch to the ORCID v2 API
 - Expose all the entities over OAI-PMH (support for CERIF)
 - Support for nested metadata in DSpace items, i.e. affiliation of authors
 - Additional integration: ADS, DBLP, connection with projects database (OpenAIRE, etc.)
- Roadmap online at: <u>https://wiki.duraspace.org/display/DSPACECRI-S/Project+RoadMap</u>



DSpace-CRIS: current architecture





Existent gap of functionalities implemented in DSpace-CRIS but useful for any kind of DSpace repository: better statistics, deduplication, feed from Scopus, WoS, Pubmed Europe, etc.

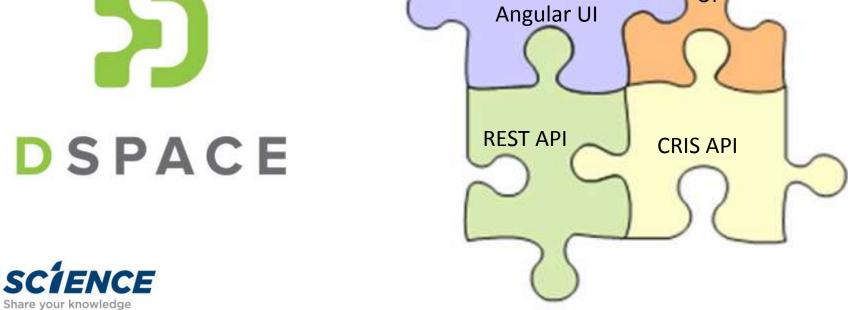


DSpace-CRIS 7: architecture

Contribute back general features to enrich the base dspace (logic & UI) Create extension points to nicely integrate (plugin) additional CRIS functionalities

Angular CRIS





4Science: a DSpace Registered Service Provider, with two DSpace Committers, the Lead of the REST API sub-team for DSpace 7, and a member in the Steering Group



A **longtime commitment** in open source, open standards, interoperability, contributing to the most relevant international communities.





Thanks for your attention

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orcid: 0000-0002-9029-1854

Panel Discussion: COAR Next Generation Repositories: Results and

Recommendations

Session: General track 7: Repository innovation - what is next?

Room: Ballroom A Session time: 28/Jun/2017, 3:30pm - 4:30pm

DSpace for Cultural Heritage: adding support for images visualization, audio/video streaming and enhancing the data model

Session: DSpace IG 3: Integrating DSpace

Room: Ballroom C Session time: 29/Jun/2017, 3:30pm - 5:00pm

