DSpace-CRIS: a CRIS enhanced repository platform *Inconecss, Berlin* 19th April 2016





Andrea Bollini (orcid:0000-0002-9029-1854)
Head of Open Source and Open Standards Strategy

Agenda

- The DSpace-CRIS project history
- A rich & customisable data model
- Main features
- ORCID integration
- Next steps

DSpace & DSpace-CRIS

Open source

- →BSD license (same as DSpace)
- →Improved Iteratively (3+ release for year)
- → Fall-back at any time to a standard DSpace



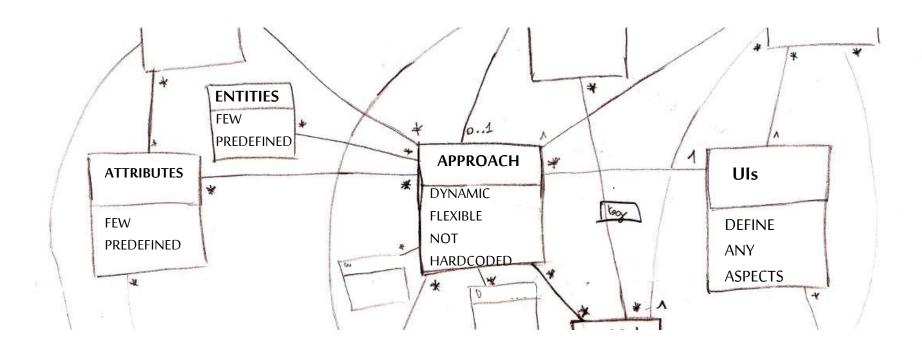
Don't call it a fork!

- > Functionalities contributed back to the main code
- → Documentation hosted on the Duraspace wiki
- → Volunteer support provided trough the dspace mailing list

The DSpace-CRIS project history

•	2009	Partnership	with Hong Kong University (DSpace 1.5)	19							
þ	2012	Release the	Release the whole project as open source: 1.8.2								
þ	2013	DSpace-Cl	RIS 1.8.3 / 3.2	WII.							
\rightarrow \lambda	2014		ocumentation released RIS 4.1– adopted by more than 60 Italian universities	S							
d	2015	DSpace-CF	RIS 4.2, 4.3, 5.2, 5.3								
	02-	2016 DSpa	ice-CRIS 5.4								
	03-	2016 DSpa	ace-CRIS 5.5								
	Late summer		DSpace-CRIS 5.5.1: Deduplication, dataset preview, administrative dashboard, CERIF ov OAI-PMH exposure and harvesting	⁄er							

Data model



Standard DSpace → publications

and dataset



DSpace-CRIS → other CERIF entities:

--- Relations

/ Researcher Pages

/ Projects

/ OrgUnits

/ 2nd Level Dynamic Objects

Main DSpace-CRIS Entities

Researcher Pages

- managing people;
- Track author identifiers, name variants, career;
- Synchronized with ORCID;
- Manageable out-of-box by end users

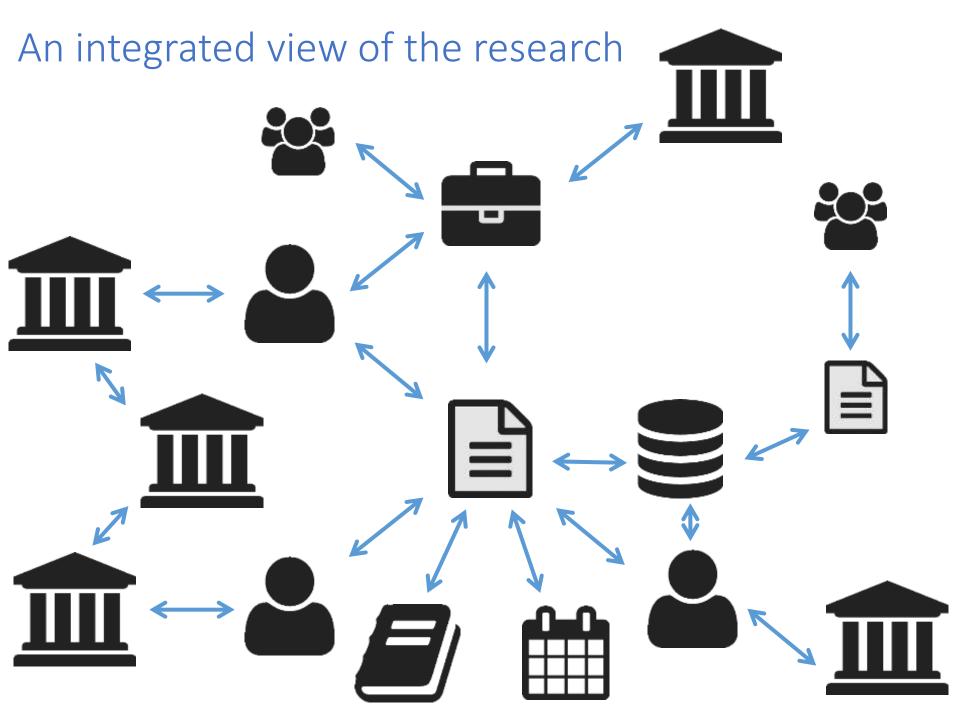
Projects and OrgUnits

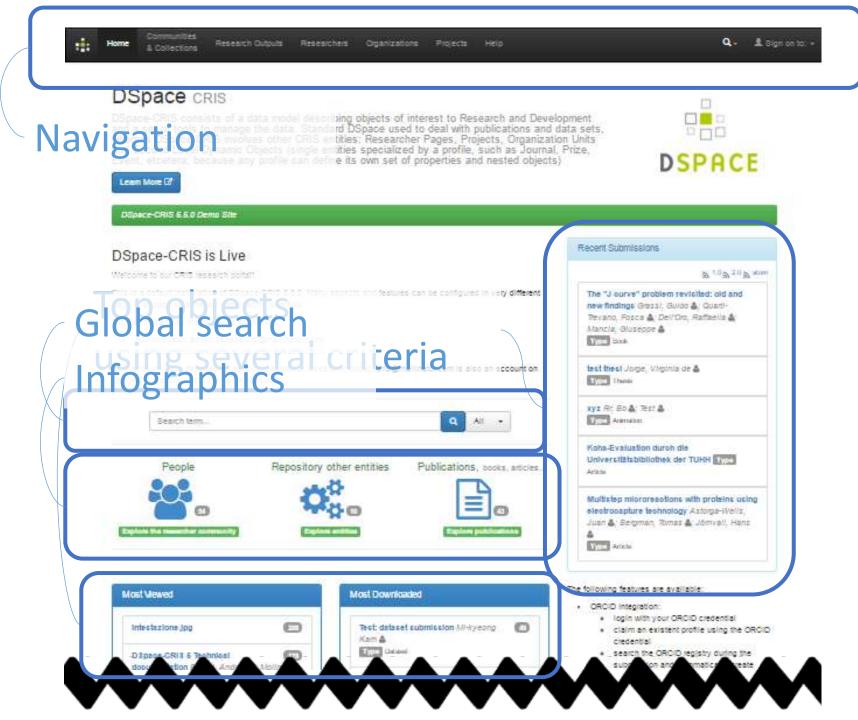
- defined as separated entities;
- Allow future extensions, specializations and build of specific workflows and editing rules

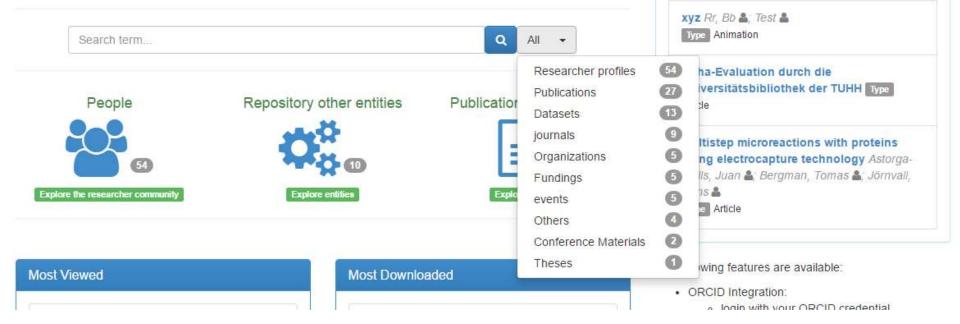
Second level Dynamic Objects

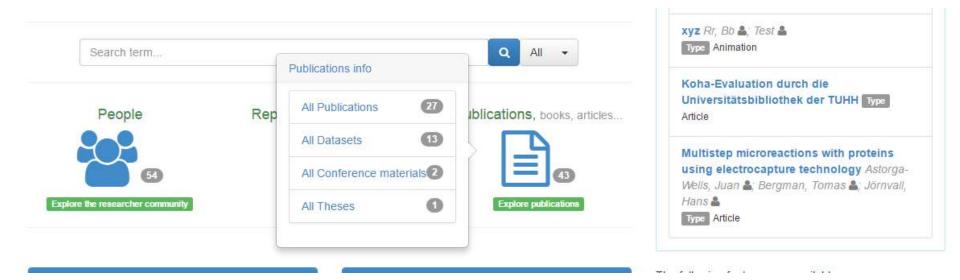
- a single entity specialized by a profile (type) ie Journal, Prize,
 Event, etc.;
- Every profile has it own set of properties independently defined

Which is the value proposition?















Home Research Outputs Researchers Departments and Schools Patents Theses Help

Explore the diversity of the University's research outputs and the authors behind the research

The PolyU Institutional Research Archive (PolyU IRA) is an online platform that actively collects and disseminates the research and scholarly outputs created by the PolyU community. By showcasing the publications, research interests, activities and academic achievement of PolyU's scholars, the PolyU IRA aims to increase the visibility of the University's research and facilitate knowledge transfer. >>More





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Books Work, 2014, v. 48, no. 4, p. 511-519

Type Journal/Magazine Article

Torsional behavior of short-staple Torque-Balanced Singles ring spun yarns and spirality of resultant knitted fabrics Yang, Kun
Thesis

Analyses of three-

dimensional eddy current field

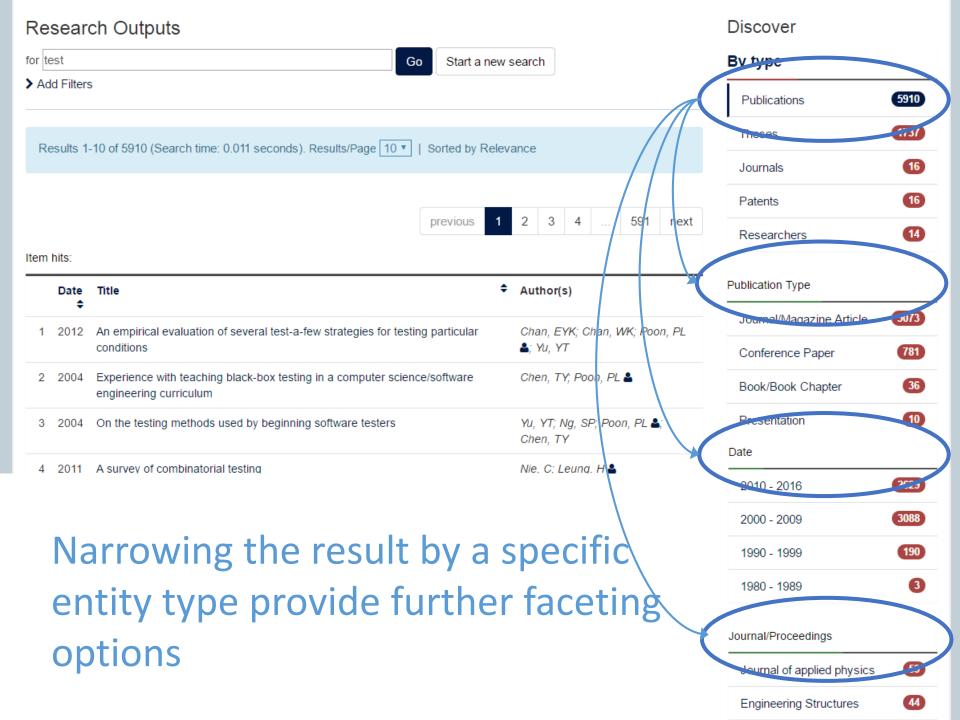
The ferric reducing
ability of plasma (FRAP) as a measure of 'antioxidant power'
the FRAP assay Benzie, IFF &
Strain, JJ
Sauce Analytical biochemistry,
1996, v. 239, no. 1, p. 70-76
Type Journal/Magazine Article





Home	Research Outputs	Researchers	Departments and Schools	Patents	Theses	Help	
Search					Disco	ver	
for test			Go Start a new search		By type		
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An empir		st-a-few strategies for t	esting particular conditions Chan, l	EYK; Chan, WK; Poon,	These	es .	1737
Source S	oftware - practice and experienal/Magazine Article	ence, 2012, v. 42, no. 8, p.	967-994		Journa	als	16
Keywords		ted in practice, called test	t-once strategy, is to identify certain p	articular conditions	Paten	ts	16
Opposite the same of the same	specification and to test each	The second secon	This strategy is implicitly based on the		Resea	archers	14
	ce with teaching black-box	testing in a computer so	cience/software engineering curricu	ulum Chen, TY; Poon,			
-	EEE transactions on education	n, 2004, v. 47, no. 1, p. 42	-50			A . A .	A - A -

Global search across the whole site with highlighting of found terms









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Explore the diversity of the University's research outputs and the authors behind the research

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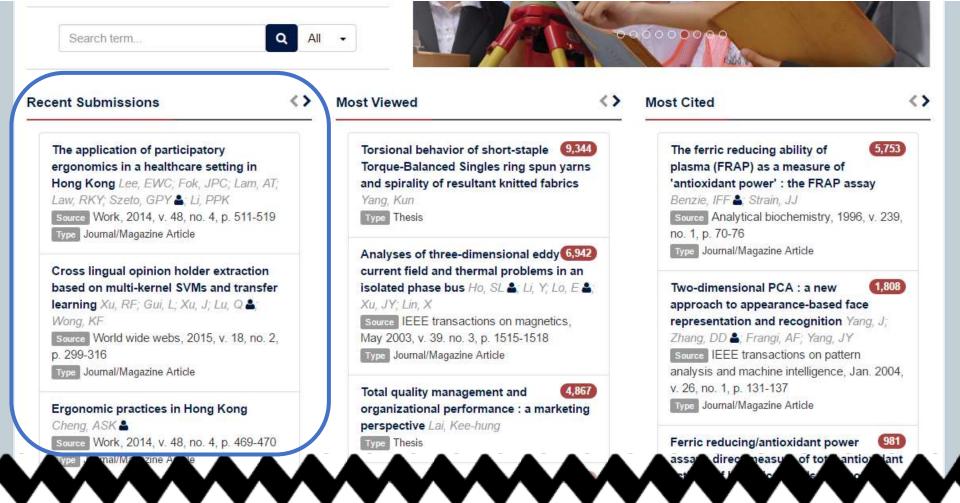
Type Journal/Magazine Article

Torsional behavior of short-staple Torque-Balanced Singles ring spun yarns and spirality of resultant knitted fabrics Yang, Kun
Type Thesis

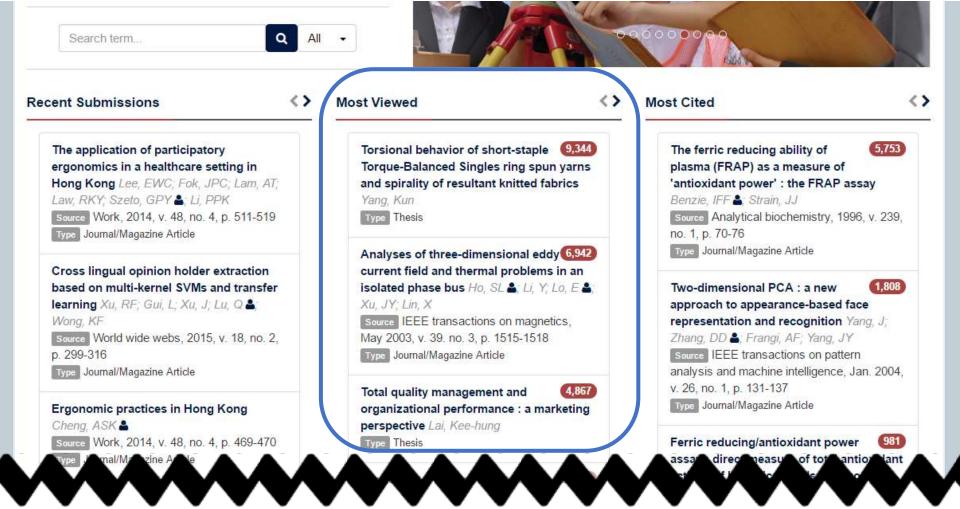
Analyses of three-

dimensional eddy current field

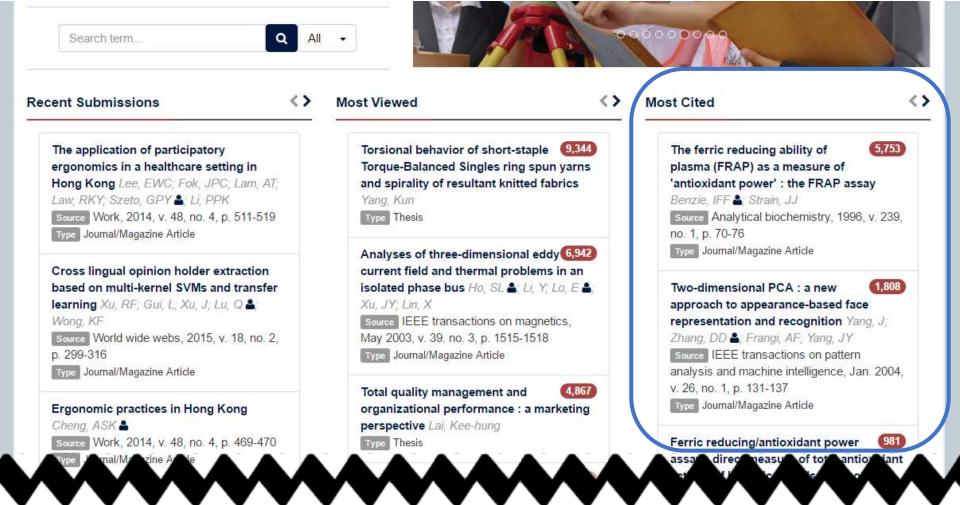
The ferric reducing
ability of plasma (FRAP) as a
measure of 'antioxidant power'
: the FRAP assay Benzie, IFF &
; Strain, JJ
sauce Analytical biochemistry,
1996, v. 239, no. 1, p. 70-76
Type Journal/Magazine Article



At the site level the recent submissions are all journal article



At the site level the most viewed item is a Thesis, the second one a Journal article



At the site level all the most cited publications are journal articles







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Explore Theses: contextualised recent submissions and top viewed



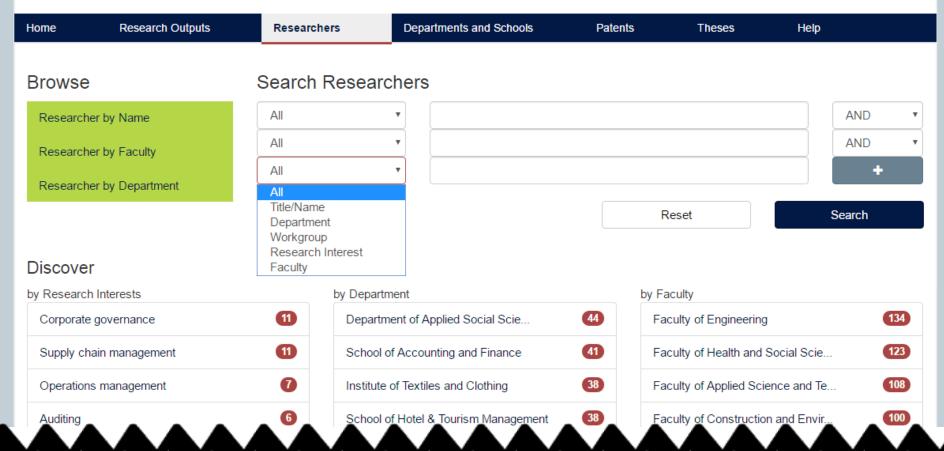


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Explore Research Output: contextualised top list, specific browse & search indexes







Explore Researchers: different browse & search indexes; different components

Title: The ferric reducing ability of plasma (FRAP) as a measure of 'antioxidant power'; the FRAP assay

Authors: Benzie, IFF & Strain, JJ

Issue 1996

Date:

Source: Analytical biochemistry, 1996, v. 239, no. 1, p. 70-76 How to cite?

Journal: Analytical Biochemistry

Abstract: A simple, automated test measuring the ferric reducing ability of plasma, the FRAP assay, is presented as a novel method for assessing 'antioxidant power.' Ferric to ferrous ion reduction at low pH causes a colored ferrous-tripyridyltriazine complex to form. FRAP values are obtained by comparing the absorbance change at 593 nm in test reaction mixtures with those containing ferrous ions in known concentration. Absorbance changes are linear over a

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simple to prepare, results are highly reproducible, and the procedure is straightforward and speedy. The FRAP assay offers a putative index of antioxidant, or reducing, potential of biological fluids within the technological reach of every laboratory and researcher interested in oxidative stress and its effects.

URI: http://hdl.handle.net/10397/29497

ISSN: 0003-2697

DOI: 10.1006/abio.1996.0292

Appears in Journal/Magazine Article Collections:

Access

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15 Citations as of Apr 6, 2016

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Page view(s)

411

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Last month

144

150

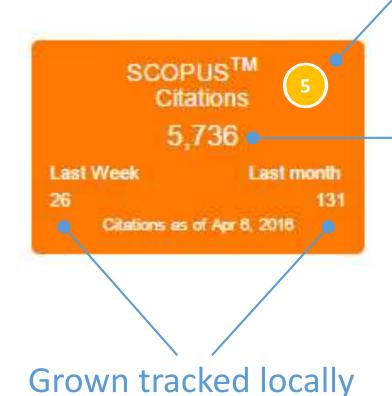
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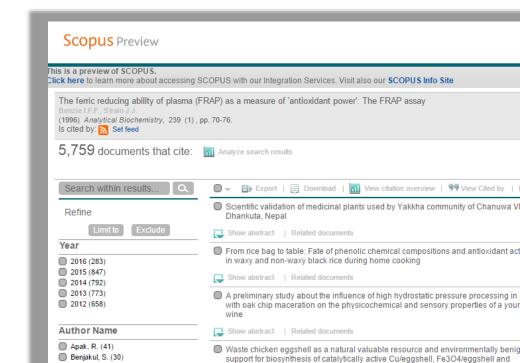


Altmetric



Rank as percentile compared to the other objects in the repository

Metric value (citation number) linked to an external detail page when provided





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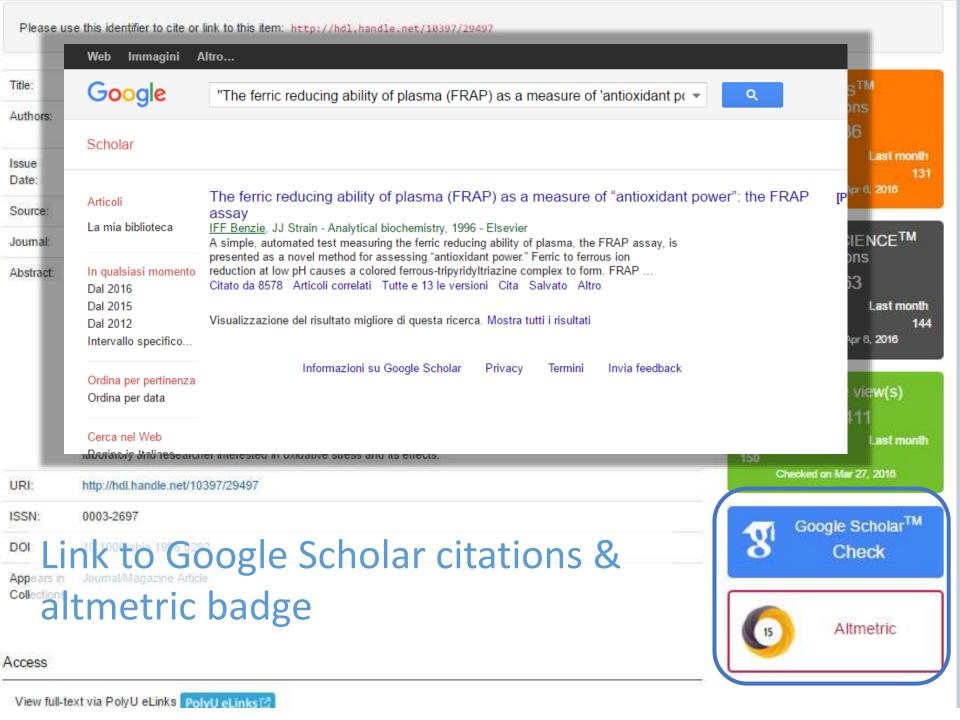
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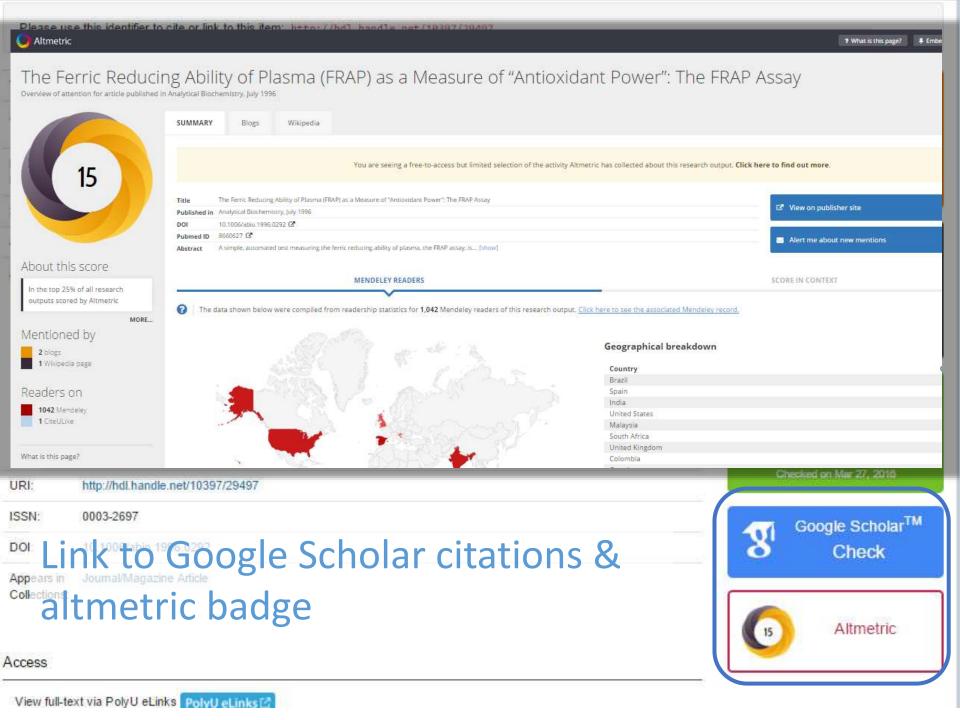
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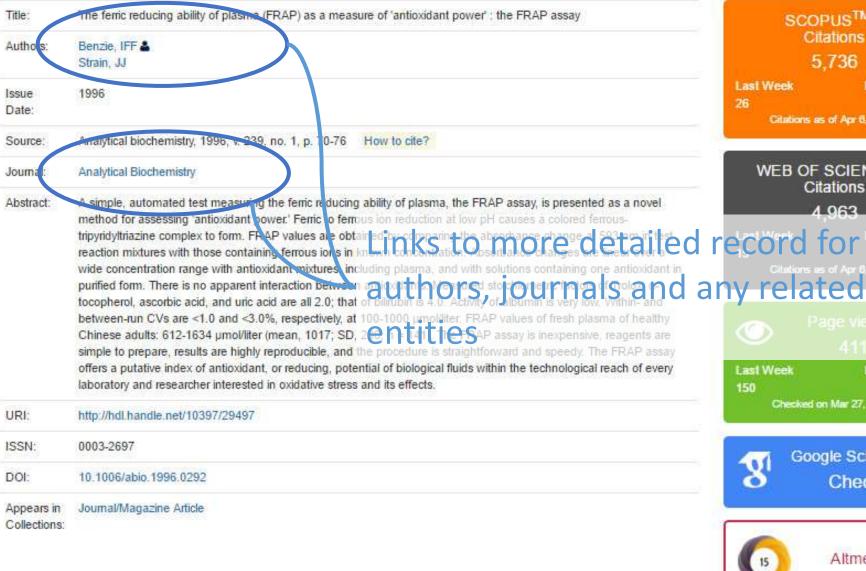
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Item View & Download Statistics: The ferric reducing ability of plasma (FRAP) as a measure of 'antioxidant power': the FRAP assay









SCOPUS[™] Citations 5.736

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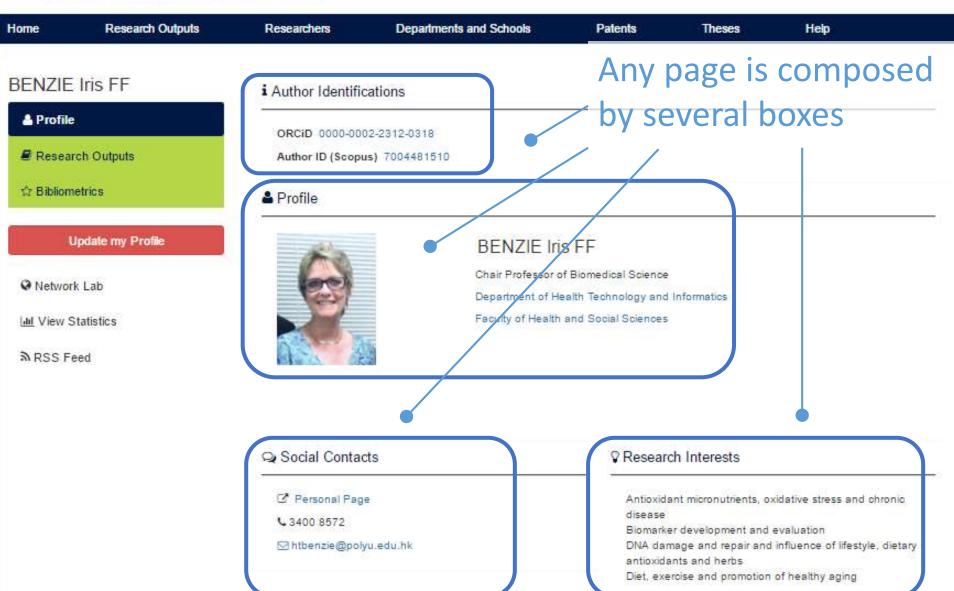
antioxidants and herbs

Diet, exercise and promotion of healthy aging

Research Outputs Home Researchers Departments and Schools **Patents** Theses Help BENZIE Iris FF Author Identifications ORCID 0000-0002-2312 Data are organized in A Profile Author ID (Scopus) 700-4481510 Several pages (tabs) Research Outputs ☆ Bibliometrics Profile BENZIE Iris FF Chair Professor of Biomedical Science Network Lab Department of Health Technology and Informatics Faculty of Health and Social Sciences Idd View Statistics RSS Feed Research Interests Social Contacts C Personal Page Antioxidant micronutrients, oxidative stress and chronic disease **₩** 3400 8572 Biomarker development and evaluation ☑ htbenzie@polyu.edu.hk DNA damage and repair and influence of lifestyle, dietary

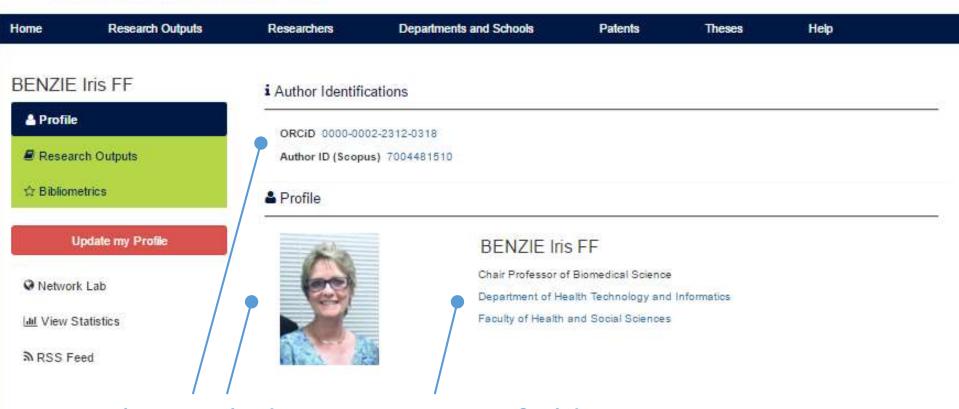












Any box includes one or more fields. Different datatypes are supported to allow storing of photo, text, number, identifiers, link to other entities

Research Interests

Antioxidant micronutrients, oxidative stress and chronic disease

Biomarker development and evaluation

DNA damage and repair and influence of lifestyle, dietary antioxidants and herbs

Diet, exercise and promotion of healthy aging

i Author Identifications

ORCiD 0000-0002-2312-0318

Author ID (Scopus) 7004481510

External identifiers can be used to directly address the profile page without know the internal CRIS identifier

Any type of identifiers, also local to the institution (staff no, etc.), are allowed – this allow straightforward integration with other institutional site (staff directory, etc.)

/cris/rp/details.html?lt=<ext_id>&lv=<ext_value>

All the objects (publications, projects, etc.) that are linked to the researcher can be automatically included in her

profile using dynamic components

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5HOWCASE YOUR RESEARCH GAIN GLOBAL EXPOSURE

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BENZIE	Iris FF	■ Research	Output (All) Filter by ▼			
& Profile						
■ Research Outputs			Results 1-20 of 118	3 (Search time: 0.003 se	econds).	
☆ Bibliom	etrics		1 2	3 4 5 6 →		
ţ	Jpdate my Profile	Date *	Title			Author(s)
Networ	k Lab	1 2008	Acute hyperglycemia and oxidative stress : di	rect cause and effect?		Choi, SW; Benzie, IF & Ma, SW;
III View S	tatistics					Strain, JJ; Hannigan, BM
A RSS F	eed		Acute post-ingestion changes in plasma asco relationship to dose and to existing body stor			Benzie, IFF & Strain, JJ
			Affective images ; relieving chronic pain and opersons	enhancing quality of life f	or older	Tse, MMY ♣; Pun, SPY, Benzie, IFF ♣
			Antioxidant (reducing) efficiency of ascorbate concentration	in plasma is not affected	l by	Benzie, IFF ♣ Chung, WY; Strain, JJ
		5 2008	Antioxidant activity of Chinese medicinal herb	es		Chan, SW; Li, S; Kwok, CY; Benzie, IFF ♣ Szeto, YT; Guo, DJ, He, XP; Yu, PHF
		6 2011	Antioxidant content and ultraviolet absorption	characteristics of human	n tears	Choy, CKM; Cho, P&; Benzie, IFF

The metric framework can be applied to any entity – out of box support for Scopus, Web of Science, PubMed and internal usage statistics for publications and researchers

BENZIE Iris FF

A Profile

Research Outputs

☆ Bibliometrics

Update my Profile

Network Lab

View Statistics

RSS Feed

i Author Identifications

ORCiD 0000-0002-2312-0318

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Total Citations WEB OF SCIENCE™

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Citations as of Apr 16, 2016

Total Citations PubMed Central[™]

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Citations as of Apr 16, 2016

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106

Citations as of Apr 16, 2016

Works indexed in WEB OF SCIENCE™

95

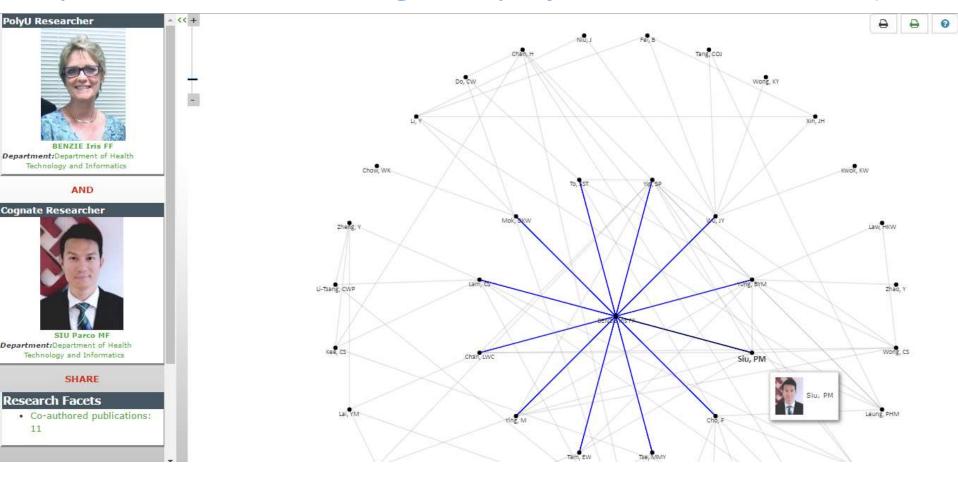
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Works indexed in PubMed CentralTM

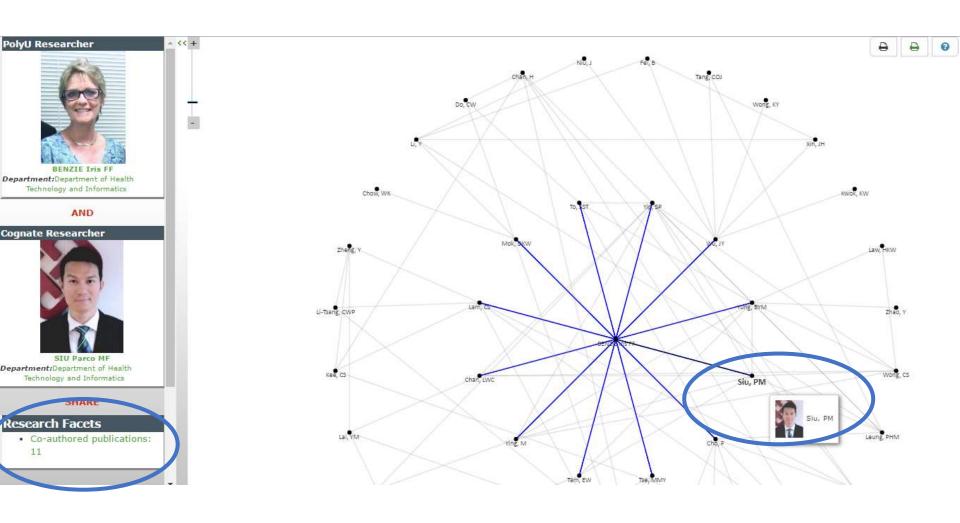
63

Citations as of Apr 16, 2016

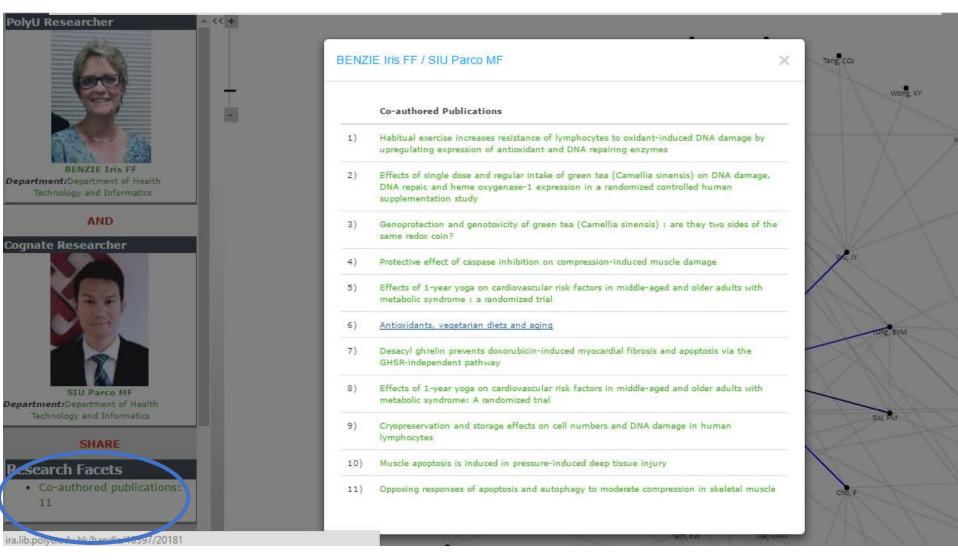
It is possible to explore the collaboration network of a researcher defining own criteria (co-authoring publications, coinvestigation projects, co-interest, etc.)



Once a co-researcher is selected it is possible to see the details of the collaboration



Once a co-researcher is selected it is possible to see the details of the collaboration



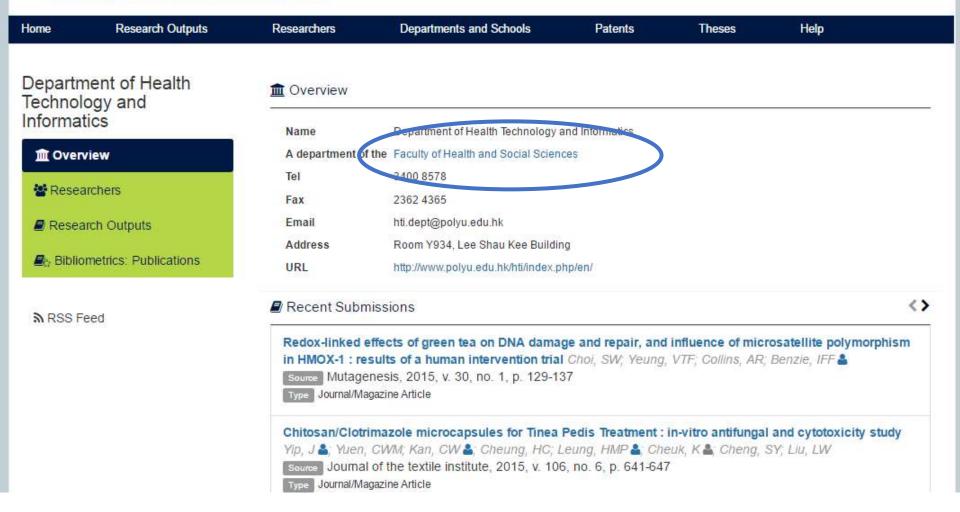




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It is also possible to navigate through hierarchy organizations



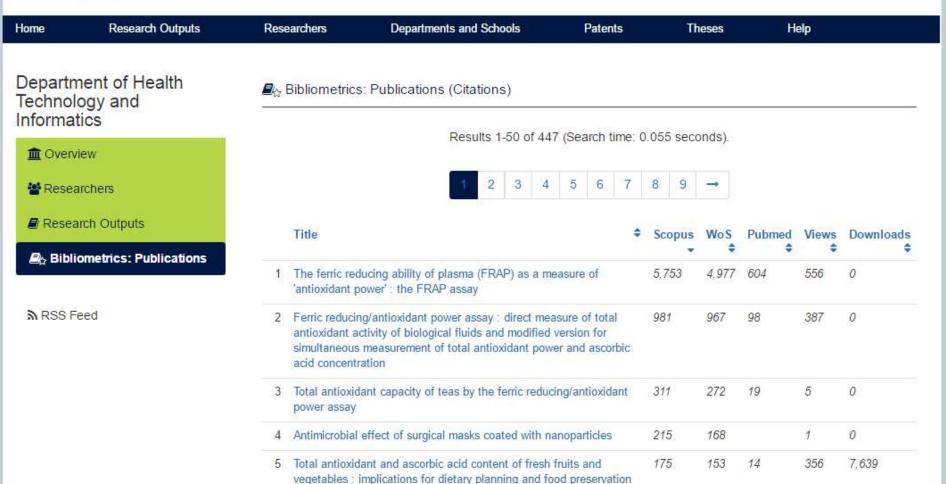


Home	Research Outputs	Researchers	Departments and Schools	Patents	Theses	Help	
Department of Health Technology and Informatics		Researcher profiles					
		Results 1-15 of 15 (Search time: 0.0 seconds).					
		English Name		^ (Chinese Name		
		BENZIE Iris FF &					
		CHAN Lawrence WC &		A	赎籍志		
<i>■</i> △ Biblio	metrics: Publications	LAI Christopher WK 🏝		糖律等			
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All the objects (publications, projects, etc.) that are linked to the organization can be automatically included







...including indirect reference (via researchers) and their metrics

Internal usage statistics are available to all levels of hierarchy, including the whole repository

DSpace CRIS

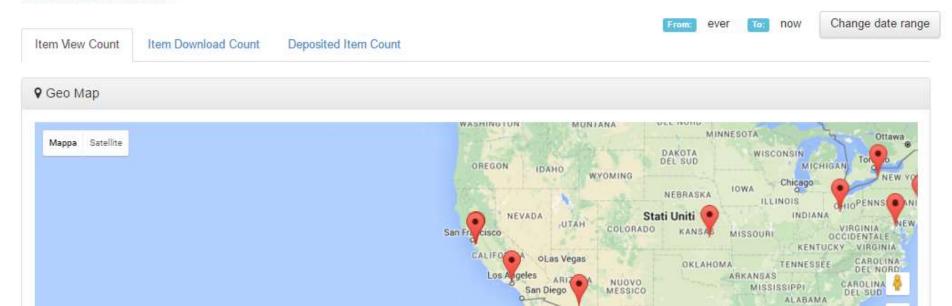
DSpace-CRIS consists of a data model describing objects of interest to Research and Development and a set of tools to manage the data. Standard DSpace used to deal with publications and data sets, whereas DSpace-CRIS involves other CRIS entities: Researcher Pages, Projects, Organization Units and Second Level Dynamic Objects (single entities specialized by a profile, such as Journal, Prize, Event, etcetera; because any profile can define its own set of properties and nested objects)



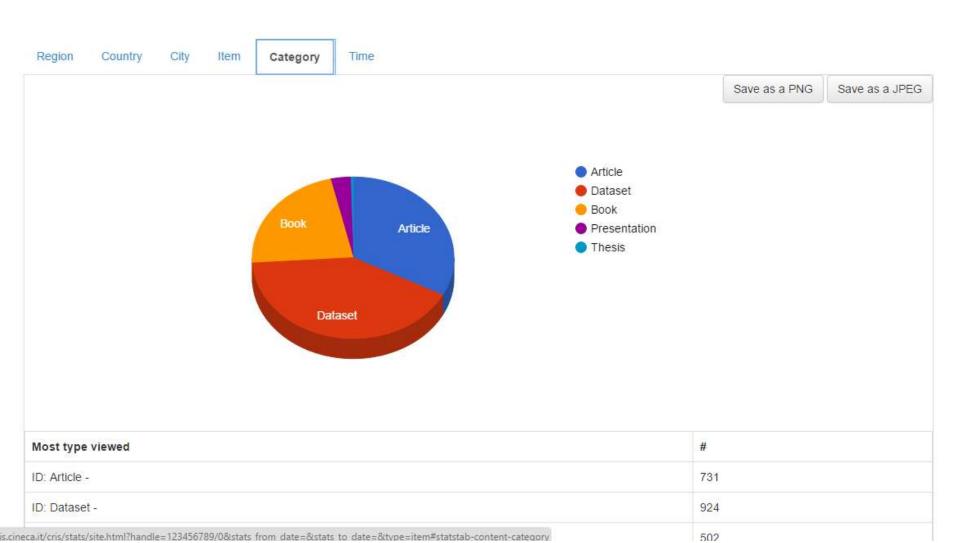
Learn More 2

DSpace-CRIS 5.5.0 Demo Site

General Statistics



Internal usage statistics are available to all levels of hierarchy, including the whole repository



Internal usage statistics are available to all levels of hierarchy, including the whole repository



How to collect the data

- Publications & dataset can be self-archived by the researchers or mediated by librarians
 - A quality check can be performed with customizable workflow
- CRIS entities can be:
 - automatically synchronized with external sources using spreadsheet
 - manually created during publication / dataset submission (new record must be confirmed / integrated by the administrator)
 - Rich researcher profiles can be automatically imported from the ORCID registry
 - Managed via UI by administrators

ORCID Integration



Connect local profile with the ORCID registry



Transfer information from the repository to the ORCID Registry and viceversa



Create new record - facilitate the creation of new ORCID records for researchers

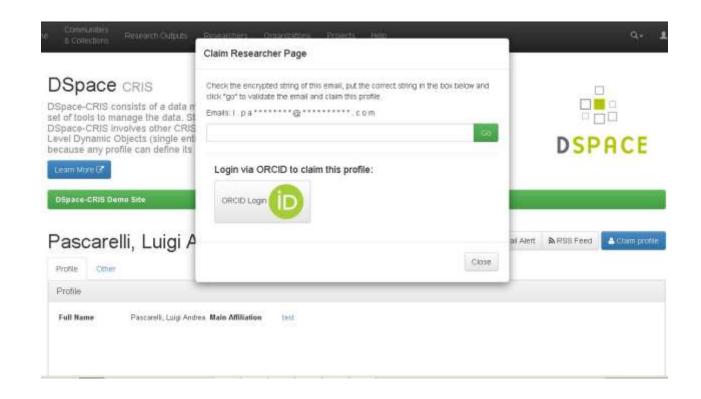


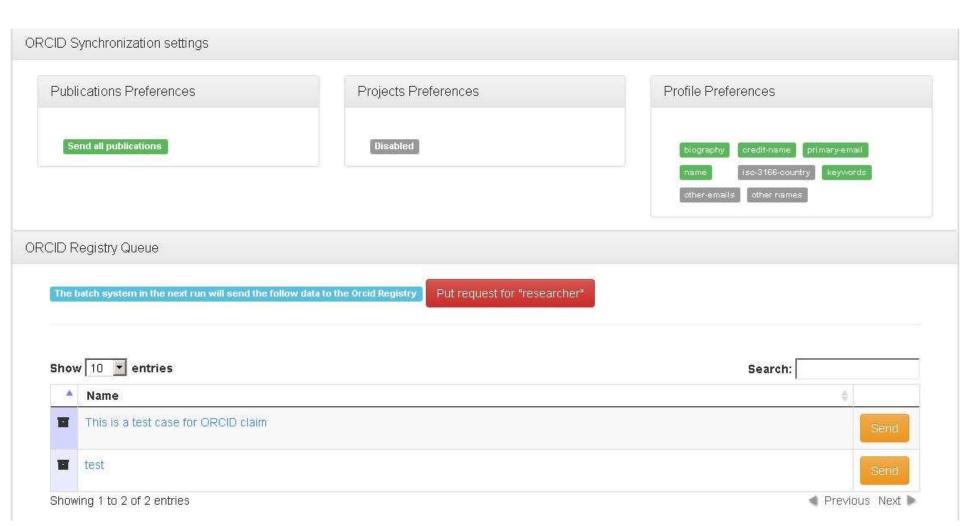
Login via ORCID iD

ORCID Integration

- Login and claim your profile using ORCID
- Use the ORCID registry as authority for people extending the local directory
- Initialize profiles with data from the ORCID registry
- Create ORCID profiles for researcher with opt-in (require member api)
- Push local information about biography, publications, projects to ORCID (require member api)









om

Connecting Research and Researchers FOR RESEARCHERS

MY ORCID RECORD

FOR ORGANIZATIONS

ACCOUNT SETTINGS

ABOUT

HELP

LEARN MORE

SIGN OUT

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

Control of the Contro

DEVELOPER TOOLS

N.

Show archived Preferred name From Subject Date ORCID ID Your ORCID Record was amended 2016-02-19 ▼ DSpace-CRIS Demo WebSite iosandbox.orcid.org/0000-0002-9421-192X DSpace-CRIS Demo WebSite has updated items in the Work section of your record. View public version Biography Preferred name ▼ Education (0) + Add education IT Sort ORCID ID You haven't added any education, add some now sandbox.orcid.org/0000-0002-9421-192X ▼ Employment (0) + Add employment If Sort View public version You haven't added any employment, add some now Get a QR Code for your iD 2 + Add funding ▼ Funding (0) If Sort Also known as You haven't added any funding, add some now DSpace-CRIS, Researcher + Add works 11 Sort Country Test Article for ORCID Sample journal Keywords 2015-01-01 | other SOURCE-WORK-ID: 65 Websites URL: http://demo-dspace-cris.cineca.it/handle/123456789/41 Emails 計画 Source: DSpace-CRIS Demo WebSite Preferred source researcher.dspacecris@mailinator.c

What's next?

- Deduplication tools: warn about potential duplicate during submission and administrative dashboard to compare & merge
- CERIF over OAI-PMH:
 - Exposure: compliance with the OpenAIRE guidelines for CRIS system
 - Harvesting of rich data using CERIF over OAI-PMH to create regional, national or disciplinary portal
- More tools for dataset: quota management, data streaming, preview and manipulation tools

The data model configuration doesn't require coding!

Research Information System Administration

Content -

DSpace-CRIS 5.5.0 Demo Site

Add a Researcher Profile

View all Researchers

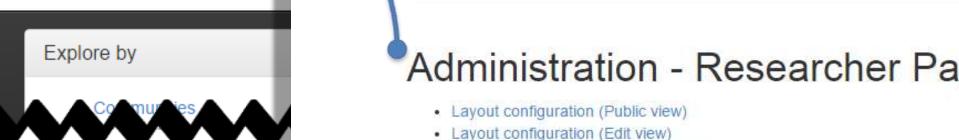
Layout configuration (Group metadata)

CRIS Module

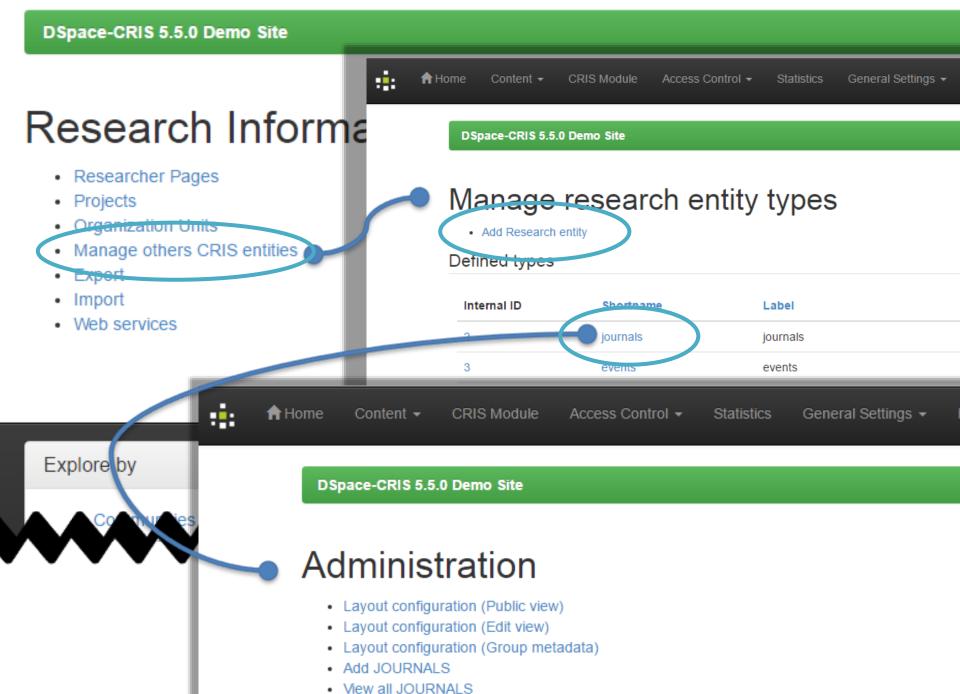
Access Control -

Statistics

- Researcher Page
- Projects
- · Organization Units
- Manage others CRIS entities
- Export
- Import
- · Web services



A Home



Edit Box 3

A unique name for this box

Short name 🚱

details

The label of the box

Title 🔞

Journal description

JSP custom name

External rendering (2)

Fields availables

- ill ☑ Description [journalsdescription][Priority:0] ☑
- ii ☑ ISSN [journalsissn][Priority:800] ☑
- i ☑ Subject Classifications [journalskeywords][Priority:850] ☑
- ii ☑ Name Journal [journalsname][Priority:900] ☑
- m

 [journalspicture][Priority:1000]

 ■

Create a date field

Create a text field

Create a complex field

Create a link field

Create a file field

Add a Researcher Profile reference field

Add a Project reference field

Add an Organization Unit reference field

Add generic research entities reference field

Create a boolean field

Create a check/radio/dropdown field

Create a classification tree widget

Build new property field definition .

Save Changes



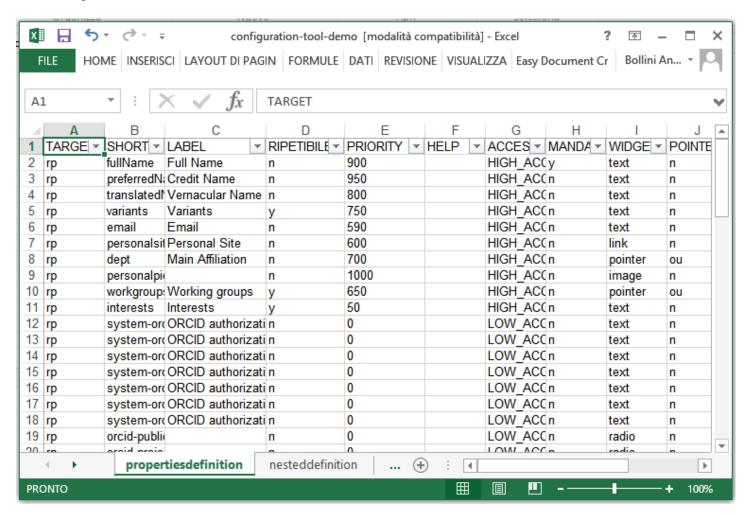




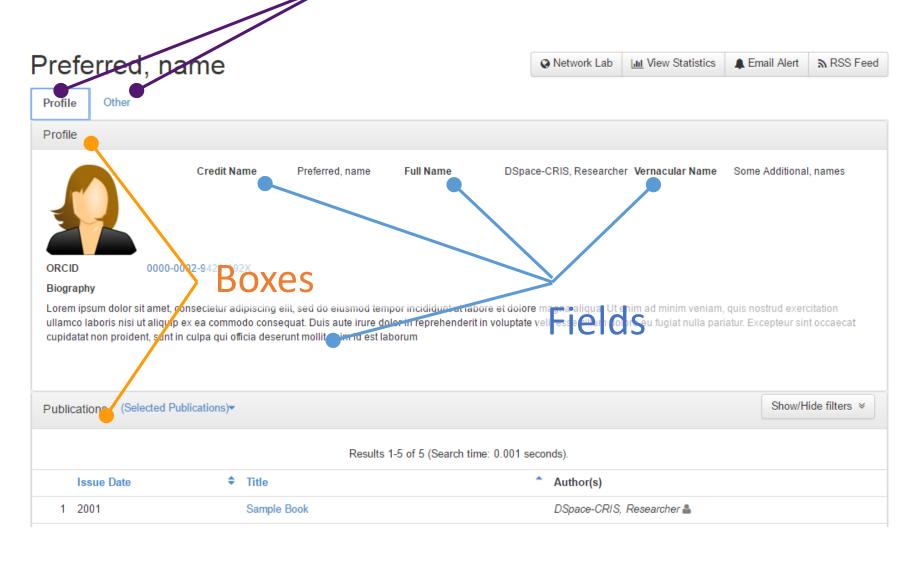


Data model configuration

- It can be performed via UI and exported to xls
- It can be imported from XLS files



Tabs





Thanks for your attention!

https://wiki.duraspace.org/display/DSPACECRIS



Andrea Bollini (orcid:0000-0002-9029-1854)
Head of Open Source and Open Standards Strategy
a.bollini@cineca.it

http://www.slideshare.net/AndreaBollini2