DSpace standard Data model and DSpace-CRIS

DCAT Discussion: exploring convergence

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High level comparison

- DSpace
    - focus on digital object providing more or less support for the Portland Common Data Model
    - Communities & collections match the PCDM collection scope & definition
    - Data model is pre-defined

- DSpace-CRIS
    - allows to manage additional entities to support rich context around the digital object
    - Out-of-box it provides support for the research domain (CRIS)
    - Data model is open and configurable: other domains can be managed without change the database or write code

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DSpace-CRIS in a nutshell

2009 - The University of Hong Kong decides to enhance its Institutional Repository

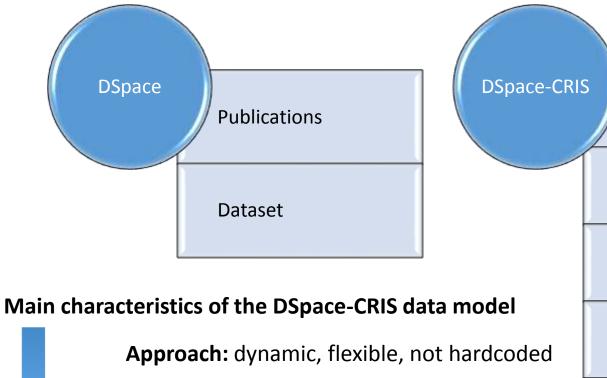**2012** - DSpace-CRIS is released as open source to the community

Today

> More than 80 DSpace-CRIS installations running all around the World
> Asia | US | Canada | Brasil | Europe | Australia | Africa

> Documentation and software available on the DSpace Wiki:
> https://wiki.duraspace.org/display/DSPACECRIS/DSpace-CRIS+Home

Data model

DSpace

Publications
Dataset

DSpace-CRIS

Publications
Dataset
Researcher Pages
Projects
OrgUnits
2nd Level Dynamic Objects

Main characteristics of the DSpace-CRIS data model

Approach: dynamic, flexible, not hardcoded

Attributes: only a few predefined

Entities: only a few predefined

Uis: all aspects can be defined

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Main DSpace-CRIS Entities

Managing people:

Tracking author's identifiers, name variants, career;

Synchronized with ORCID;

Manageable out-of-box by end users

Organisation & projects: Defined as separated entities;

Allow future extensions, specific workflows and editing rules

Other entities:

A single entity characterized by a profile/type (ie: Journal, Prize, Event, etc.;

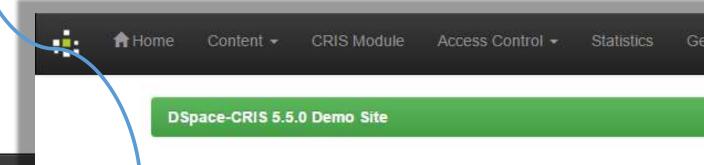Each profile has its own set of properties (independently defined)

An integrated view of the research, other domains supported!

The data model configuration doesn't require coding!

Research Information System Administration

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

Explore by

- Communities
& Collections

🏠 Home   Content ▾   CRIS Module   Access Control ▾   Statistics   Ge

Administration - Researcher Pa

- Layout configuration (Public view)
- Layout configuration (Edit view)
- Layout configuration (Group metadata)
- Add a Researcher Profile
- View all Researchers

Research Informa

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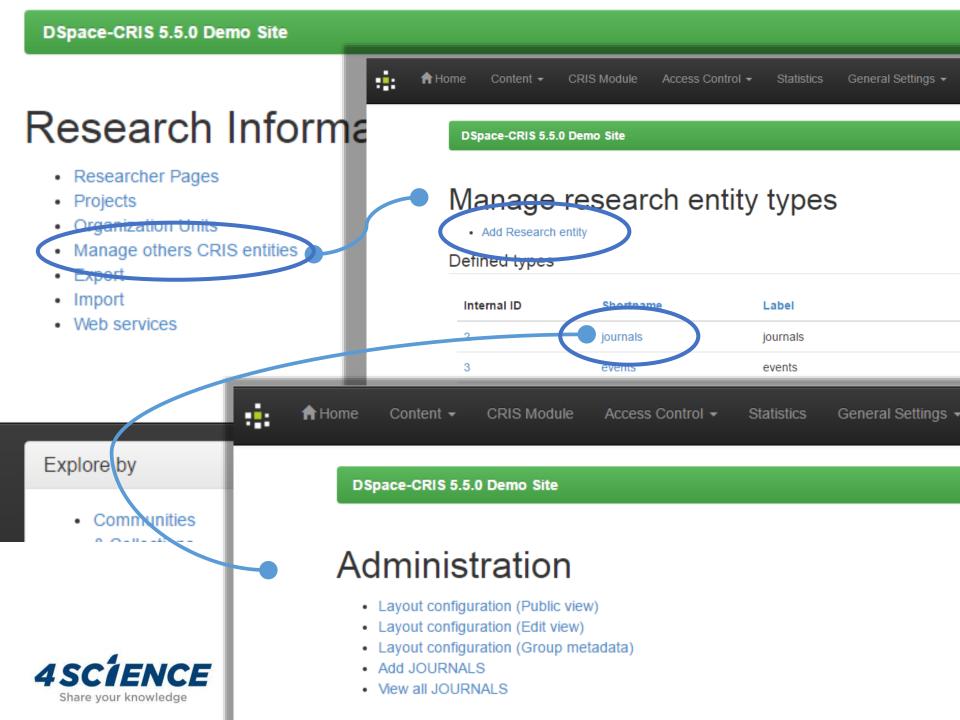- Manage others CRIS entities
- Export
- Import
- Web services

Explore by

- Communities & Collections

Home Content ▾ CRIS Module Access Control ▾ Statistics General Settings ▾

Manage research entity types

- Add Research entity

Defined types

Internal ID	Shortname	Label
2	journals	journals
3	events	events

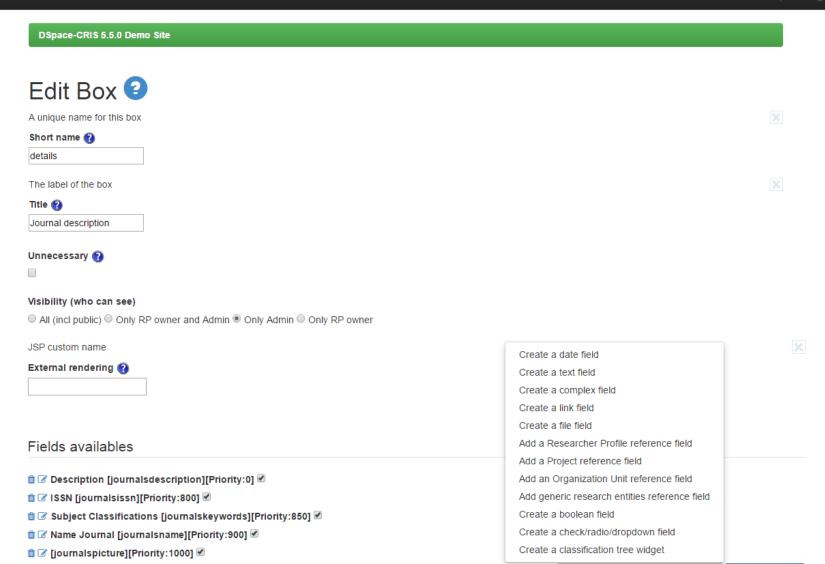Home Content ▾ CRIS Module Access Control ▾ Statistics General Settings ▾

Administration

- Layout configuration (Public view)
- Layout configuration (Edit view)
- Layout configuration (Group metadata)
- Add JOURNALS
- View all JOURNALS

DSpace-CRIS 5.5.0 Demo Site

Edit Box ❓

A unique name for this box   ✕

Short name ❓

details

The label of the box   ✕

Title ❓

Journal description

Unnecessary ❓

☐

Visibility (who can see)

○ All (incl public)   ○ Only RP owner and Admin   ◉ Only Admin   ○ Only RP owner

JSP custom name   ✕

External rendering ❓

Fields availables

🗑 ✏ **Description [journalsdescription][Priority:0]** ☑

🗑 ✏ **ISSN [journalsissn][Priority:800]** ☑

🗑 ✏ **Subject Classifications [journalskeywords][Priority:850]** ☑

🗑 ✏ **Name Journal [journalsname][Priority:900]** ☑

🗑 ✏ **[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

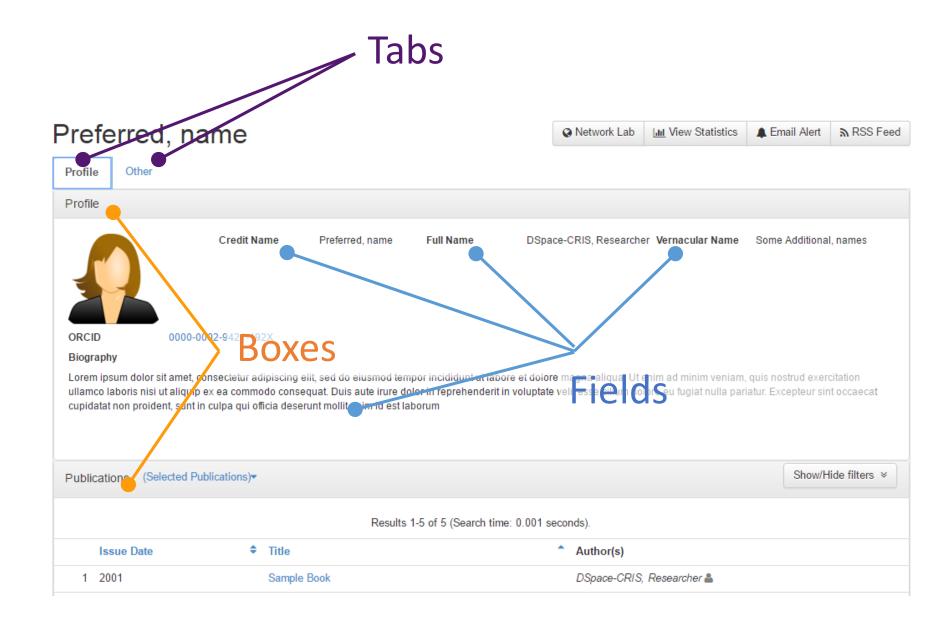Create a classification tree widget

Build new property field definition ▲   **Save Changes**

How to collect the additional data

- automatically synchronized with external sources, out-of-box using spreadsheets

- manually created during publication / dataset submission
  - Rich researcher profiles can be automatically imported from the ORCID registry
  - Rich information can be collected as part of the item submission and moved to the right entity when confirmed
  - new records can be confirmed / integrated by the administrator

- created as DSpace items and automatically converted into the right entity upon validation
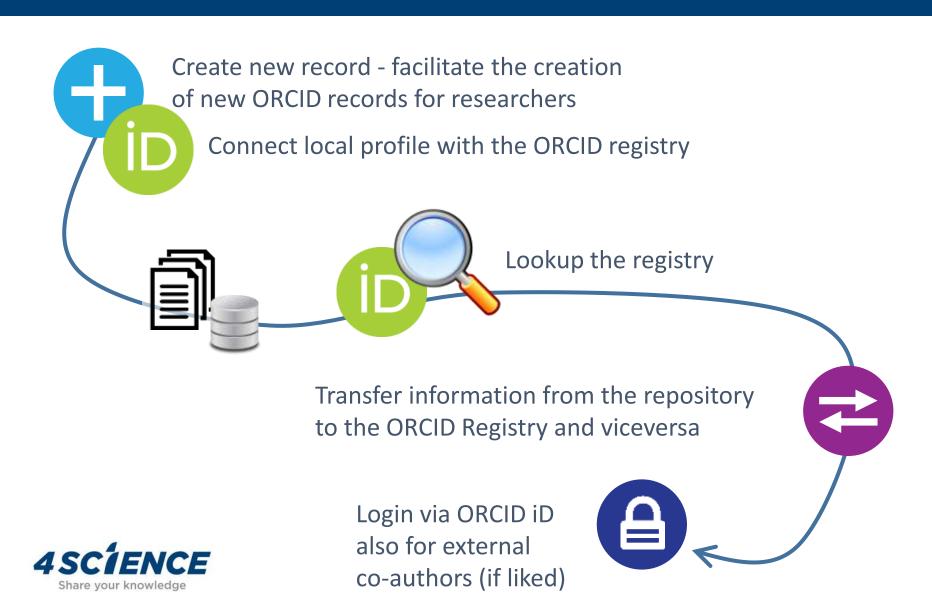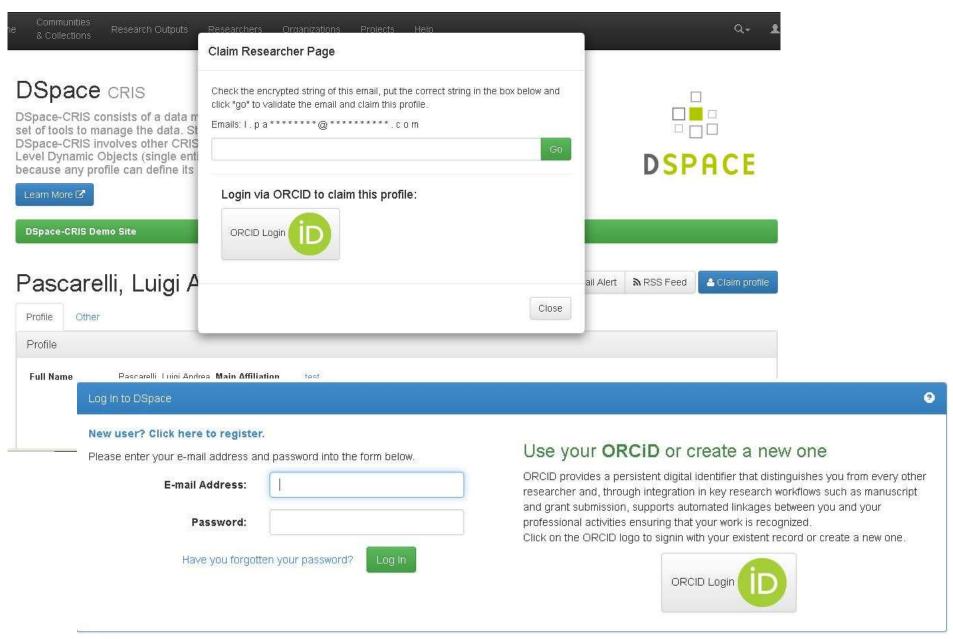
- managed via UI by administrators

Additional DSpace-CRIS benefits

- Search & browse all the entites
  - Global search and specialized section for any entity
- Aggregated statistics: by all entity (author, organisation, project, etc.)
- Full ORCID integration (push and pull information)
- Network visualization
- Alert and report about potential duplicate, merge tool for administrators
- Metrics framework: allows to store the reference period, the date of collection exposing the information to be shown in the list or used to sort. Ranking, count and aggregation performed automatically
- Automatic scanning of external datasource (WoS, Scopus, etc.)

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ORCID Integration

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

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)

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DSpace CRIS

DSpace-CRIS consists of a data m
set of tools to manage the data. St
DSpace-CRIS involves other CRIS
Level Dynamic Objects (single enti
because any profile can define its

Learn More ☑

DSpace-CRIS Demo Site

Claim Researcher Page

Check the encrypted string of this email, put the correct string in the box below and click "go" to validate the email and claim this profile.

Emails: l . p a * * * * * * * * @ * * * * * * * * * * . c o m

[   ] Go

Login via ORCID to claim this profile:

ORCID Login iD

Close

DSPACE

Pascarelli, Luigi A

ail Alert   ℕ RSS Feed   👤 Claim profile

| Profile | Other |

Profile

Full Name   Pascarelli, Luigi Andrea **Main Affiliation**   test

Log In to DSpace   ❓

New user? Click here to register.

Please enter your e-mail address and password into the form below.

E-mail Address: [   ]

Password: [   ]

Have you forgotten your password?   Log In

Use your ORCiD or create a new one

ORCID provides a persistent digital identifier that distinguishes you from every other researcher and, through integration in key research workflows such as manuscript and grant submission, supports automated linkages between you and your professional activities ensuring that your work is recognized.
Click on the ORCID logo to signin with your existent record or create a new one.

ORCID Login iD

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Screens

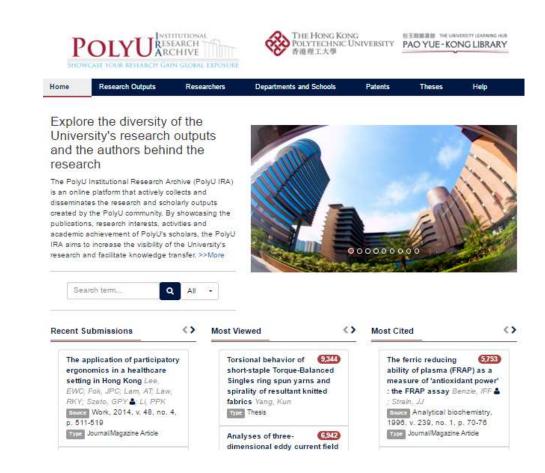from a recent public installation with basic layout customization at The Hong Kong Polytechnic University

http://ira.lib.polyu.edu.hk (link)

Run the latest released version 5.5

Manage people, organisation, publications patents, thesis

Integrated with bibliometric database

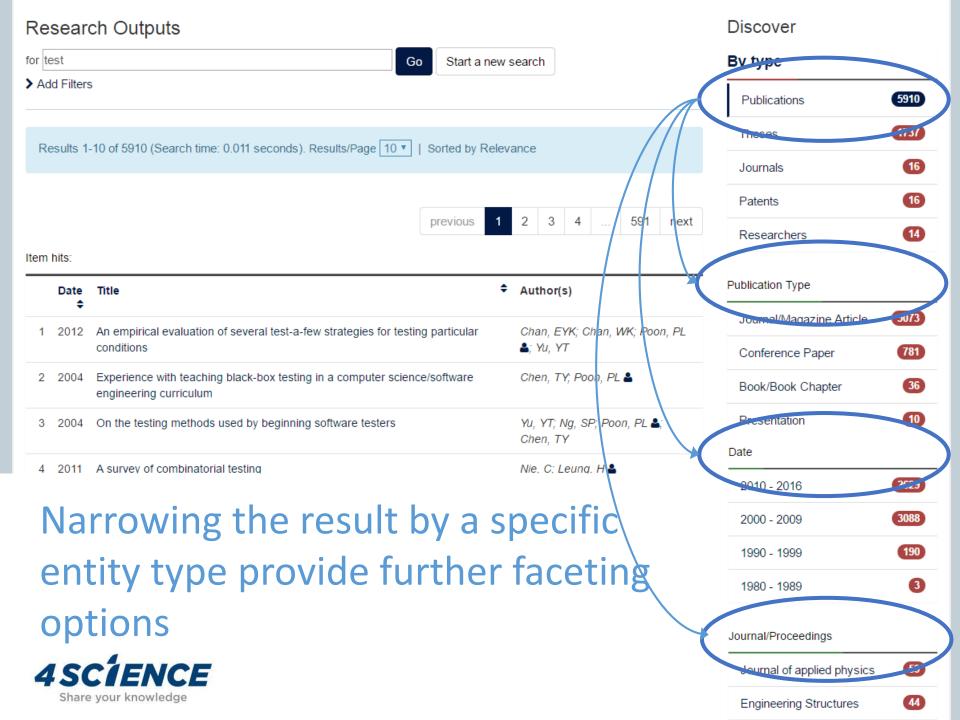Run by the library, integrated with HR, commercial database, etc.

Global search across the whole site with highlighting of found terms

Research Outputs

for `test`   Go   Start a new search

> Add Filters

Results 1-10 of 5910 (Search time: 0.011 seconds). Results/Page `10 ▾` | Sorted by Relevance

previous | **1** | 2 | 3 | 4 | ... | 591 | next

Item hits:

Date ⬍	Title	Author(s)
1	2012	An empirical evaluation of several test-a-few strategies for testing particular conditions	Chan, EYK; Chan, WK; Poon, PL 👤; Yu, YT
2	2004	Experience with teaching black-box testing in a computer science/software engineering curriculum	Chen, TY; Poon, PL 👤
3	2004	On the testing methods used by beginning software testers	Yu, YT; Ng, SP; Poon, PL 👤; Chen, TY
4	2011	A survey of combinatorial testing	Nie, C; Leung, H 👤

Discover

By type

Publications	**5910**
Theses	**1737**
Journals	**16**
Patents	**16**
Researchers	**14**

Publication Type

Journal/Magazine Article	**5073**
Conference Paper	**781**
Book/Book Chapter	**36**
Presentation	**10**

Date

2010 - 2016	**2629**
2000 - 2009	**3088**
1990 - 1999	**190**
1980 - 1989	**3**

Journal/Proceedings

Journal of applied physics	**59**
Engineering Structures	**44**

Narrowing the result by a specific entity type provide further faceting options

Dynamic components are contextualized (site level, researcher outputs, researchers, etc.)

Recent Submissions ‹ ›

The application of participatory ergonomics in a healthcare setting in Hong Kong *Lee, EWC; Fok, JPC; Lam, AT; Law, RKY; Szeto, GPY* 👤*; Li, PPK*
Source Work, 2014, v. 48, no. 4, p. 511-519
Type Journal/Magazine Article

Cross lingual opinion holder extraction based on multi-kernel SVMs and transfer learning *Xu, RF; Gui, L; Xu, J; Lu, Q* 👤*; Wong, KF*
Source World wide webs, 2015, v. 18, no. 2, p. 299-316
Type Journal/Magazine Article

Ergonomic practices in Hong Kong *Cheng, ASK* 👤
Source Work, 2014, v. 48, no. 4, p. 469-470
Type Journal/Magazine Article

Most Viewed ‹ ›

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Source IEEE transactions on magnetics, May 2003, v. 39, no. 3, p. 1515-1518
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Type Thesis

The future of fashion illustration **4,705**

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The ferric reducing ability of plasma (FRAP) as a measure of 'antioxidant power' : the FRAP assay *Benzie, IFF* 👤*; Strain, JJ* **5,753**
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Type Journal/Magazine Article

Two-dimensional PCA : a new approach to appearance-based face representation and recognition *Yang, J; Zhang, DD* 👤*; Frangi, AF; Yang, JY* **1,808**
Source IEEE transactions on pattern analysis and machine intelligence, Jan. 2004, v. 26, no. 1, p. 131-137
Type Journal/Magazine Article

Ferric reducing/antioxidant power assay : direct measure of total antioxidant activity of biological fluids and modified **981**

At the site level the recent submissions are all journal articles
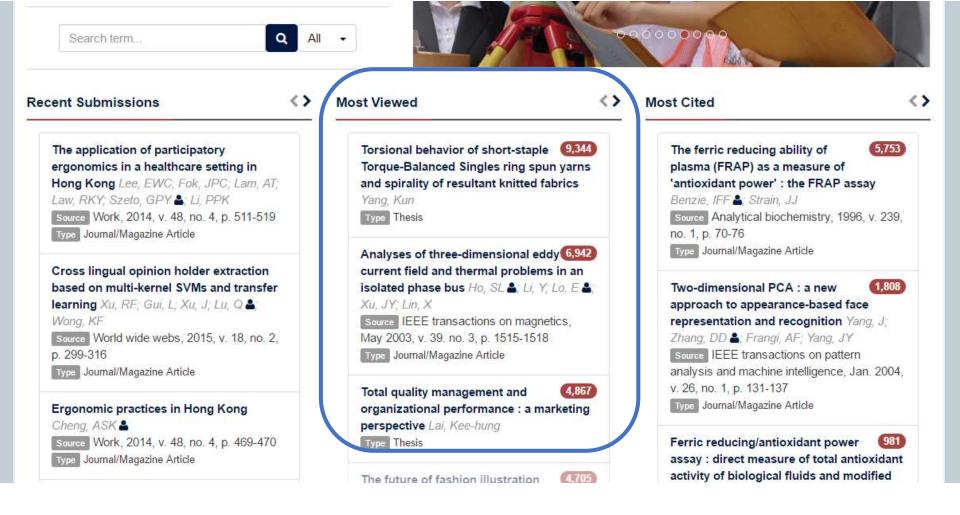
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Recent Submissions ‹ ›

The application of participatory ergonomics in a healthcare setting in Hong Kong *Lee, EWC; Fok, JPC; Lam, AT; Law, RKY; Szeto, GPY* 👤*; Li, PPK*
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Ergonomic practices in Hong Kong *Cheng, ASK* 👤
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Ferric reducing/antioxidant power assay : direct measure of total antioxidant activity of biological fluids and modified 981

At the site level the most viewed item is a Thesis, the second one a Journal article
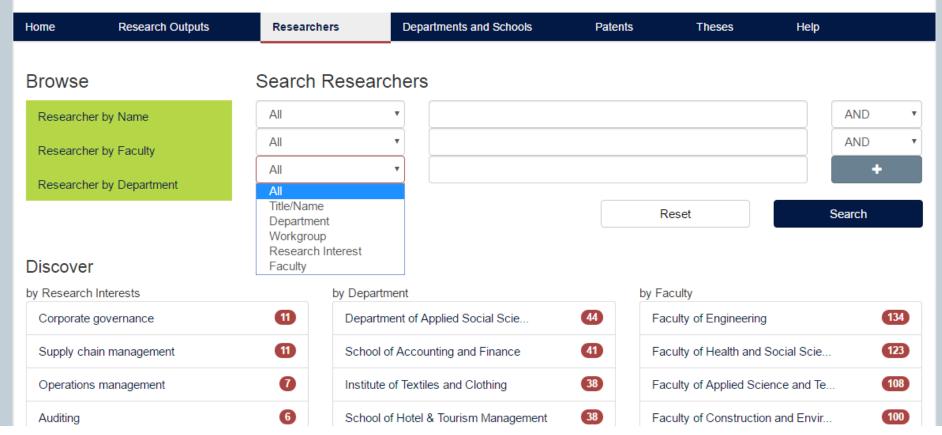
Explore Research Output: contextualised
top list, specific browse & search indexes

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 Date:	1996
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 wide concentration range with antioxidant mixtures, including plasma, and with solutions containing one antioxidant in purified form. There is no apparent interaction between antioxidants. Measured stoichiometric factors of Trolox, α-tocopherol, ascorbic acid, and uric acid are all 2.0; that of bilirubin is 4.0. Activity of albumin is very low. Within- and between-run CVs are <1.0 and <3.0%, respectively, at 100–1000 μmol/liter. FRAP values of fresh plasma of healthy Chinese adults: 612–1634 μmol/liter (mean, 1017; SD, 206; n = 141). The FRAP assay is inexpensive, reagents are 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 Collections:	Journal/Magazine Article

Access

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15 144
Citations as of Apr 6, 2016

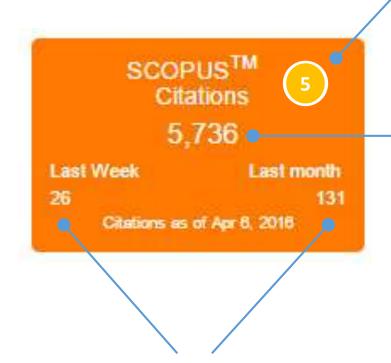**Page view(s)**
411
Last Week Last month
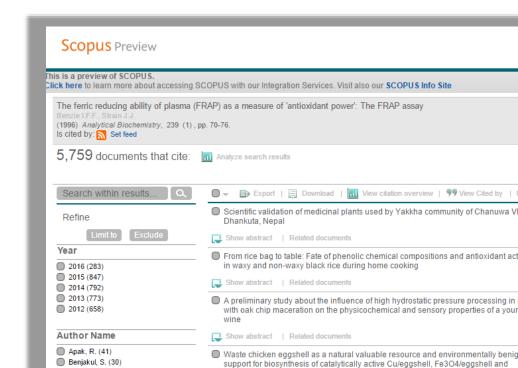150
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Google Scholar™ Check

Altmetric 15

Beside the metadata the system shows all the available metrics
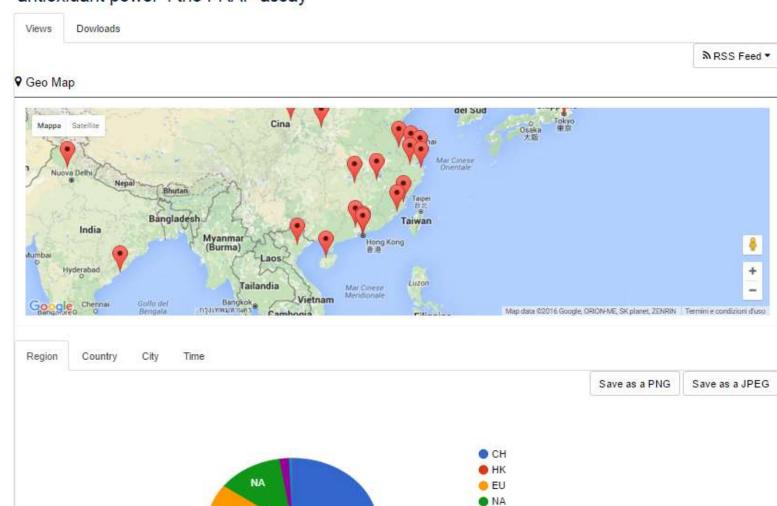
Item View & Download Statistics: The ferric reducing ability of plasma (FRAP) as a measure of 'antioxidant power' : the FRAP assay

Views   Dowloads
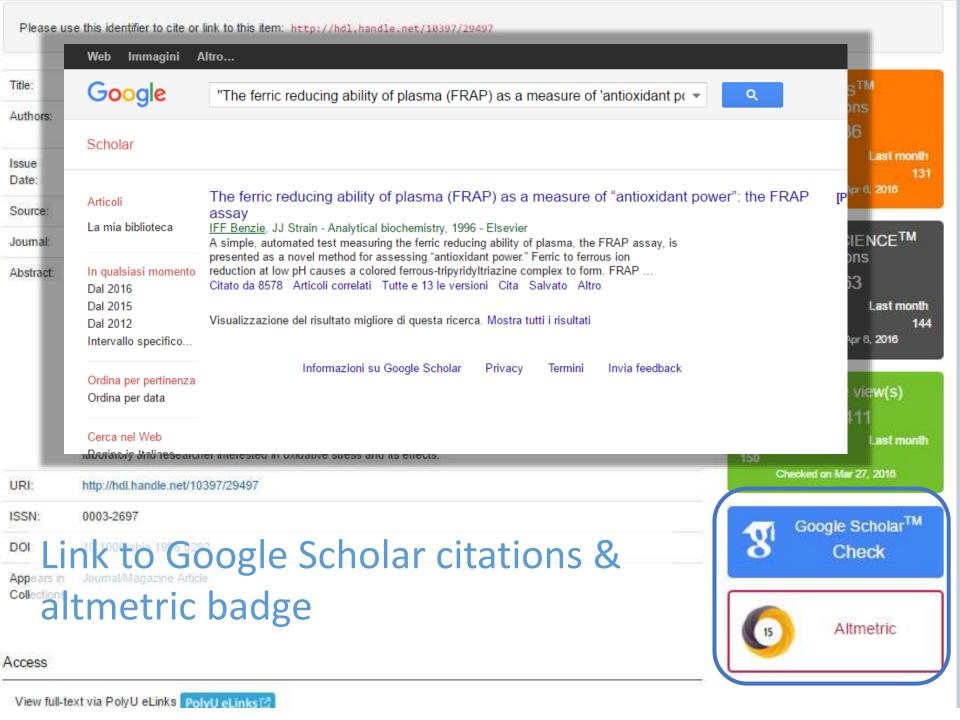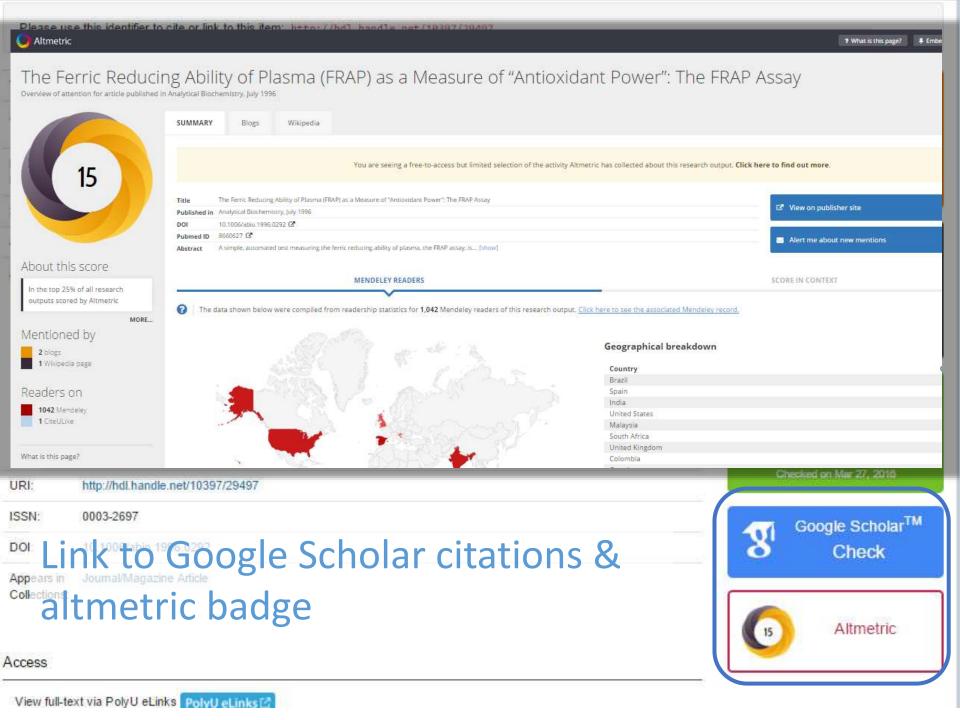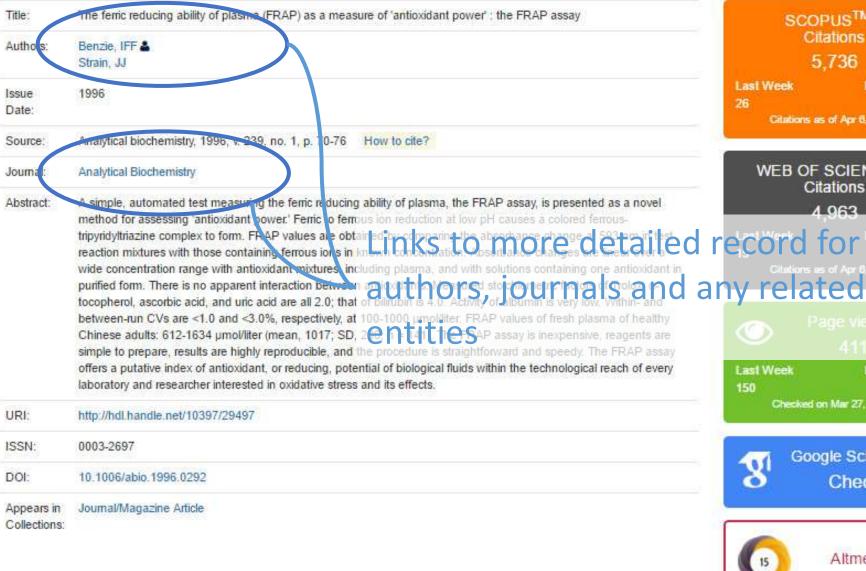
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📍 Geo Map

Region   Country   City   Time

Save as a PNG   Save as a JPEG

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- HK
- EU
- NA
- AS
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Link to Google Scholar citations & altmetric badge

Altmetric

? What is this page?   ⬇ Embe

The Ferric Reducing Ability of Plasma (FRAP) as a Measure of "Antioxidant Power": The FRAP Assay

Overview of attention for article published in Analytical Biochemistry, July 1996

SUMMARY   Blogs   Wikipedia

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Title	The Ferric Reducing Ability of Plasma (FRAP) as a Measure of "Antioxidant Power": The FRAP Assay
Published in	Analytical Biochemistry, July 1996
DOI	10.1006/abio.1996.0292
Pubmed ID	8660627
Abstract	A simple, automated test measuring the ferric reducing ability of plasma, the FRAP assay, is... [show]

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Malaysia
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Colombia

Checked on Mar 27, 2016

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

ISSN: 0003-2697

DOI: 10.1006/abio 1996.0292

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Appears in   Journal/Magazine Article
Collections

Access

View full-text via PolyU eLinks   PolyU eLinks

Google Scholar™ Check

15   Altmetric

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Authors:	Benzie, IFF 👤 Strain, JJ
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URI:	http://hdl.handle.net/10397/29497
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DOI:	10.1006/abio.1996.0292
Appears in Collections:	Journal/Magazine Article

Access

View full-text via PolyU eLinks   PolyU eLinks

Links to more detailed record for authors, journals and any related entities

Data are organized in several pages (tabs)

Each page is composed by several boxes

BENZIE Iris FF

- **Profile**
- Research Outputs
- Bibliometrics

Update my Profile

- Network Lab
- View Statistics
- RSS Feed

i Author Identifications

ORCiD 0000-0002-2312-0318

Author ID (Scopus) 7004481510

Profile

BENZIE Iris FF

Chair Professor of Biomedical Science

Department of Health Technology and Informatics

Faculty of Health and Social Sciences

Social Contacts

- Personal Page
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- htbenzie@polyu.edu.hk

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

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

i Author Identifications

ORCiD 0000-0002-2312-0318

Author ID (Scopus) 7004481510

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

/cris/rp/details.html?lt=**orcid**&lv=**0000-0002-2312-0318**
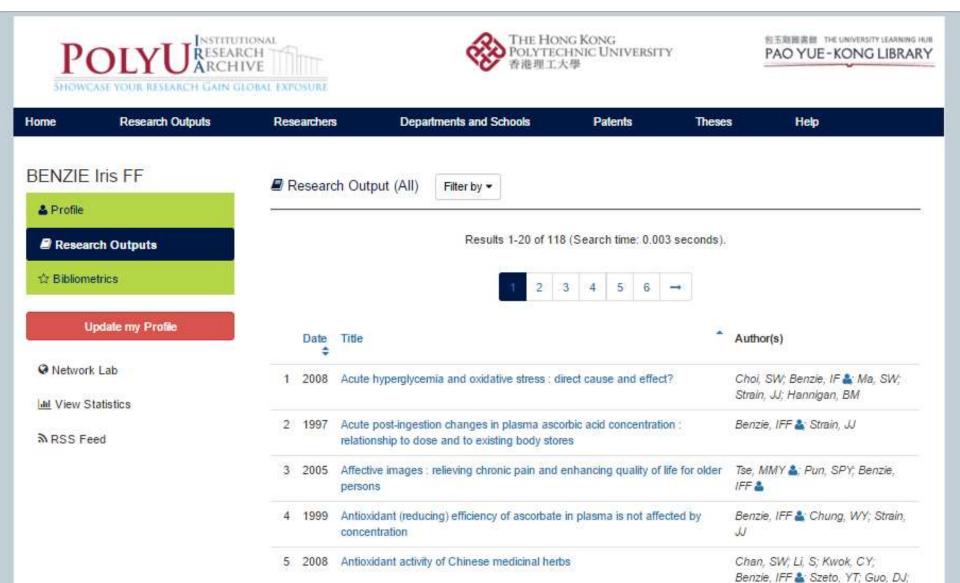
Any type of identifier is allowed (including the ones created locally by the institution – e.g.: staff #)

This permits an easy and direct integration with other institutional sites (staff directory, etc.)
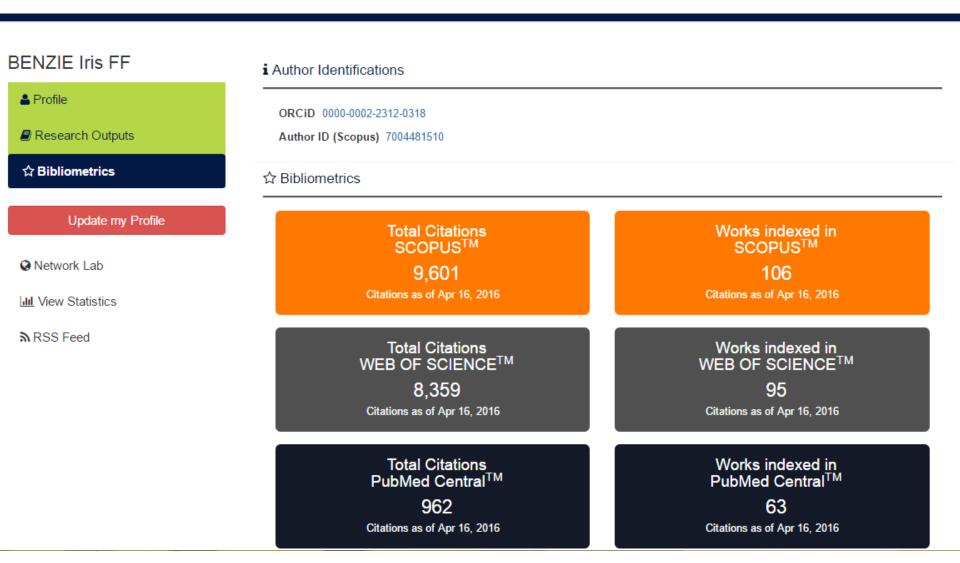
/cris/rp/details.html?lt=**<ext_id>**&lv=**<ext_value>**
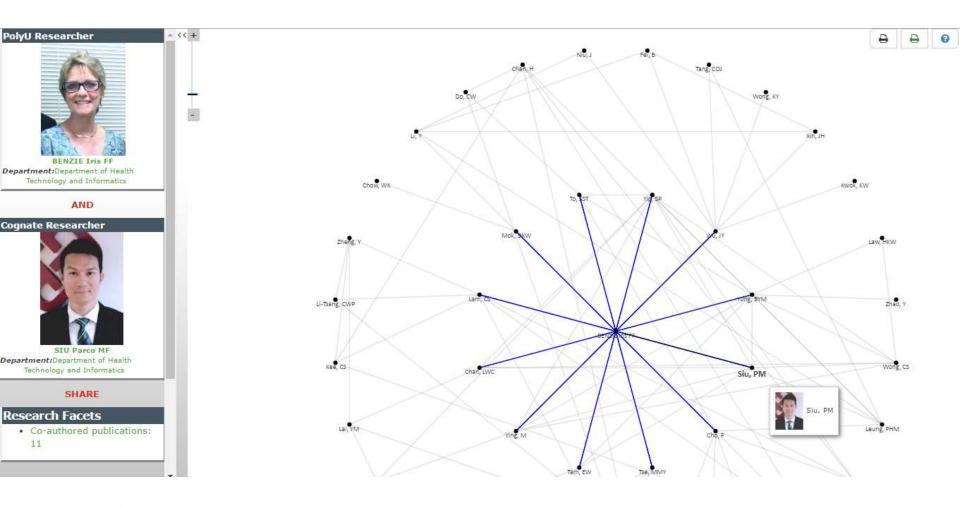
All the objects (publications, projects, etc.) linked to a researcher can be automatically included in her profile using dynamic components

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

BENZIE Iris FF

- 👤 Profile
- 📖 Research Outputs
- ☆ **Bibliometrics**

Update my Profile

- 🌐 Network Lab
- 📊 View Statistics
- 📡 RSS Feed

ℹ **Author Identifications**

ORCiD 0000-0002-2312-0318

Author ID (Scopus) 7004481510

☆ Bibliometrics

Total Citations SCOPUS™ 9,601 Citations as of Apr 16, 2016	Works indexed in SCOPUS™ 106 Citations as of Apr 16, 2016
Total Citations WEB OF SCIENCE™ 8,359 Citations as of Apr 16, 2016	Works indexed in WEB OF SCIENCE™ 95 Citations as of Apr 16, 2016
Total Citations PubMed Central™ 962 Citations as of Apr 16, 2016	Works indexed in PubMed Central™ 63 Citations as of Apr 16, 2016

It is possible to explore the collaboration network of a researcher based on your 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

PolyU Researcher

BENZIE Iris FF
Department: Department of Health Technology and Informatics

AND

Cognate Researcher

SIU Parco MF
Department: Department of Health Technology and Informatics

SHARE

Research Facets
- Co-authored publications: 11

ira.lib.polyu... .hk/handle /10397/20181

BENZIE Iris FF / SIU Parco MF

Co-authored Publications

1) Habitual exercise increases resistance of lymphocytes to oxidant-induced DNA damage by upregulating expression of antioxidant and DNA repairing enzymes

2) Effects of single dose and regular intake of green tea (Camellia sinensis) on DNA damage, DNA repair, and heme oxygenase-1 expression in a randomized controlled human supplementation study

3) Genoprotection and genotoxicity of green tea (Camellia sinensis) : are they two sides of the same redox coin?

4) Protective effect of caspase inhibition on compression-induced muscle damage

5) Effects of 1-year yoga on cardiovascular risk factors in middle-aged and older adults with metabolic syndrome : a randomized trial

6) Antioxidants, vegetarian diets and aging

7) Desacyl ghrelin prevents doxorubicin-induced myocardial fibrosis and apoptosis via the GHSR-independent pathway

8) Effects of 1-year yoga on cardiovascular risk factors in middle-aged and older adults with metabolic syndrome: A randomized trial

9) Cryopreservation and storage effects on cell numbers and DNA damage in human lymphocytes

10) Muscle apoptosis is induced in pressure-induced deep tissue injury

11) Opposing responses of apoptosis and autophagy to moderate compression in skeletal muscle

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It is also possible to navigate through the hierarchy of organizations

All the objects (publications, projects, etc.) linked to the organization can be automatically included

…including indirect reference (via researchers) and their metrics

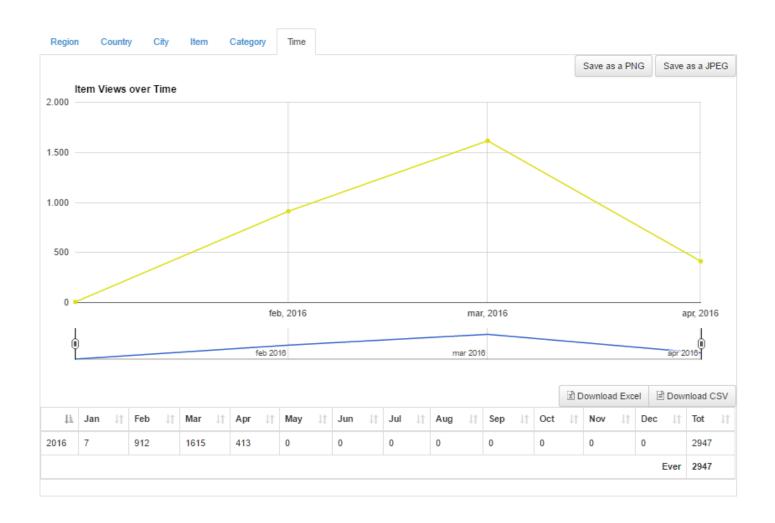# Internal usage statistics are available at all levels of hierarchy, including the whole repository

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

| Region | Country | City | Item | **Category** | Time |

Save as a PNG   Save as a JPEG

- Article
- Dataset
- Book
- Presentation
- Thesis

Most type viewed	#
ID: Article -	731
ID: Dataset -	924

is.cineca.it/cris/stats/site.html?handle=123456789/0&stats_from_date=&stats_to_date=&type=item#statstab-content-category   502

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

Thanks for your attention

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