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Open Research Data – the FAIRest Data is the Future of
Science 20 April 2017 Tallinn University of Technology

Publishing Research Data in Repositories: New Output New Knowledge and New Occupations

DiVA consortia, Sweden

urban.ericsson@ub.uu.se

Repository manager DiVA, PhD.
DiVA-portal: <http://diva-portal.org>



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Outline

- Introduction to DiVA (Academic Archive Online) 44 members in a consortia managed by Uppsala University library.
- The Swedish and European guidelines for research data.
- Datasets in DiVA



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About DiVA

- Started in 2000
 - Developed at Uppsala University Library
 - Initial purpose was to publish doctoral theses in full text
- A completely new version in 2008
 - Combined system for full texts and bibliographic references (evaluation/bibliometrics)
 - Registering all kind of publications produced by researchers, teachers and students
- Built mainly on open source software





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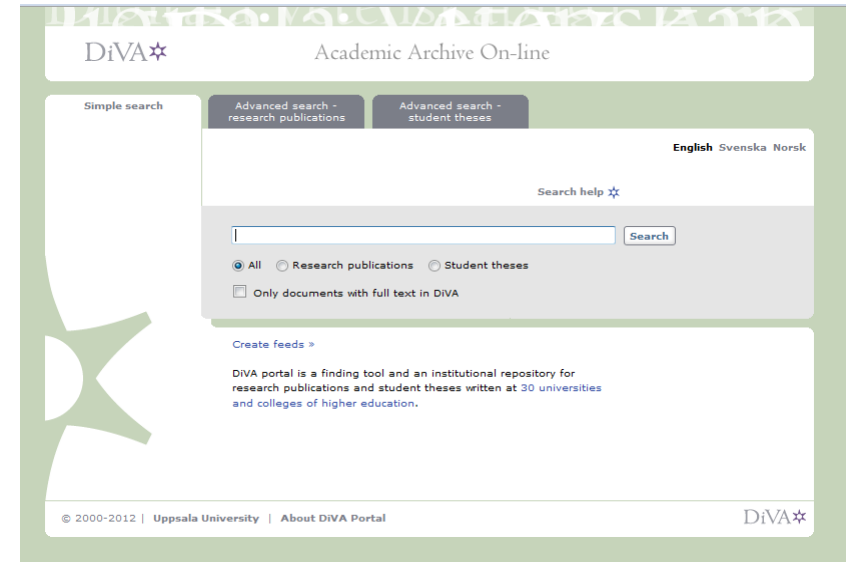
DiVA

44 Universities, Research Institutes and Museums

Blekinge Institute of Technology
 Dalarna University
 Ersta Sköndal University College
 Swedish National Defence College
 The Swedish School of Sport and Health Sciences
 The Swedish Agency for Marine and Water Management
 Höskolan i Borås
 Halmstad University
 Stockholm School of Economics
 University of Gävle
 University of Skövde
 Kristianstad University
 University West
 Jönköping University
 Karlstad University
 The Royal Institute of Art
 Royal College of Music
 University College of Arts, Crafts and Design
 Royal Institute of Technology
 Linköping University
 Linnaeus University
 Luleå University of Technology
 Mälardalen University
 Mid Sweden University
 The Nordic Africa Institute
 Nationalmuseum
 Swedish Environmental Protection Agency
 Nordic Council of Ministers

Swedish Museum of Natural History
 Örebro University
 Swedish Polar Research Secretariat
 RISE/Research Institutes of Sweden
 Red Cross University College
 Södertörn University
 Sophiahemmet University College
 Swedish Meteorological and Hydrological Institute
 Stockholm University
 Umeå University
 Stockholm University of the Arts
 Uppsala University
 The Swedish National Road and Transport Research Institute

DiVA portal: www.diva-portal.org



950 000 references - 280 000 in full text

DiVA Members

- Use the same system
- All members contribute to system development
- Joint funding through fees
- Layout and some functionality can be adapted locally

Local DiVA-portals



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KARLSTADS UNIVERSITET
Universitetsbiblioteket
Elektroniska publikationer från Karlstads universitet. Vetenskapliga artiklar, avhandlingar, uppsatser och examensarbeten

Simple search | Advanced search - research publications | Advanced search - student theses | Statistics

English Svenska Norsk

Högskolan på Gotland | Publications
Gotland University

Simple search | Advanced search - research publications | Advanced search - student theses | Statistics

English Svenska Norsk



Linnæus University
Sweden

Simple search | Advanced search - research publications | Advanced search - student theses | Statistics

Publications

Search help ☆

publications | Student theses

with full text in DiVA

Coming Licentiate Theses > Browse > Create feeds >

Welcome to LINKÖPING UNIVERSITY ELECTRONIC PRESS

Linköping University

Publications

Simple search | Advanced search - research publications | Advanced search - student theses | Statistics

Search help ☆

All | Research publications | Student theses

Only documents with full text in DiVA

Coming Theses > Browse > Create feeds >



KTH Publication Database DiVA

Simple search | Advanced search - research publications | Advanced search - student theses | Statistics

English Svenska Norsk

Search help ☆

södertörns högskola
SÖDERTÖRN UNIVERSITY

Simple search | Advanced search - research publications | Advanced search - student theses | Statistics

Search help ☆

All | Research publications | Student theses

Only documents with full text in DiVA

Browse > Create feeds >

Stockholm University

Simple search | Advanced search - research publications | Advanced search - student theses | Statistics

Search help ☆

All | Research publications | Student theses

Only documents with full text in DiVA

Coming Theses > Browse > Create feeds >

DiVA at Stockholm University contains publications produced by the university's researchers and students.

Nordiska Afrikainstitutet
The Nordic Africa Institute

Publications

Simple search | Advanced search - research publications | Statistics

Search help ☆

Only documents with full text in DiVA

Browse > Create feeds >

© 2000-2012 | Nordic Africa Institute | Nordic Africa Institute Library | DiVA Portal | DiVA Log in

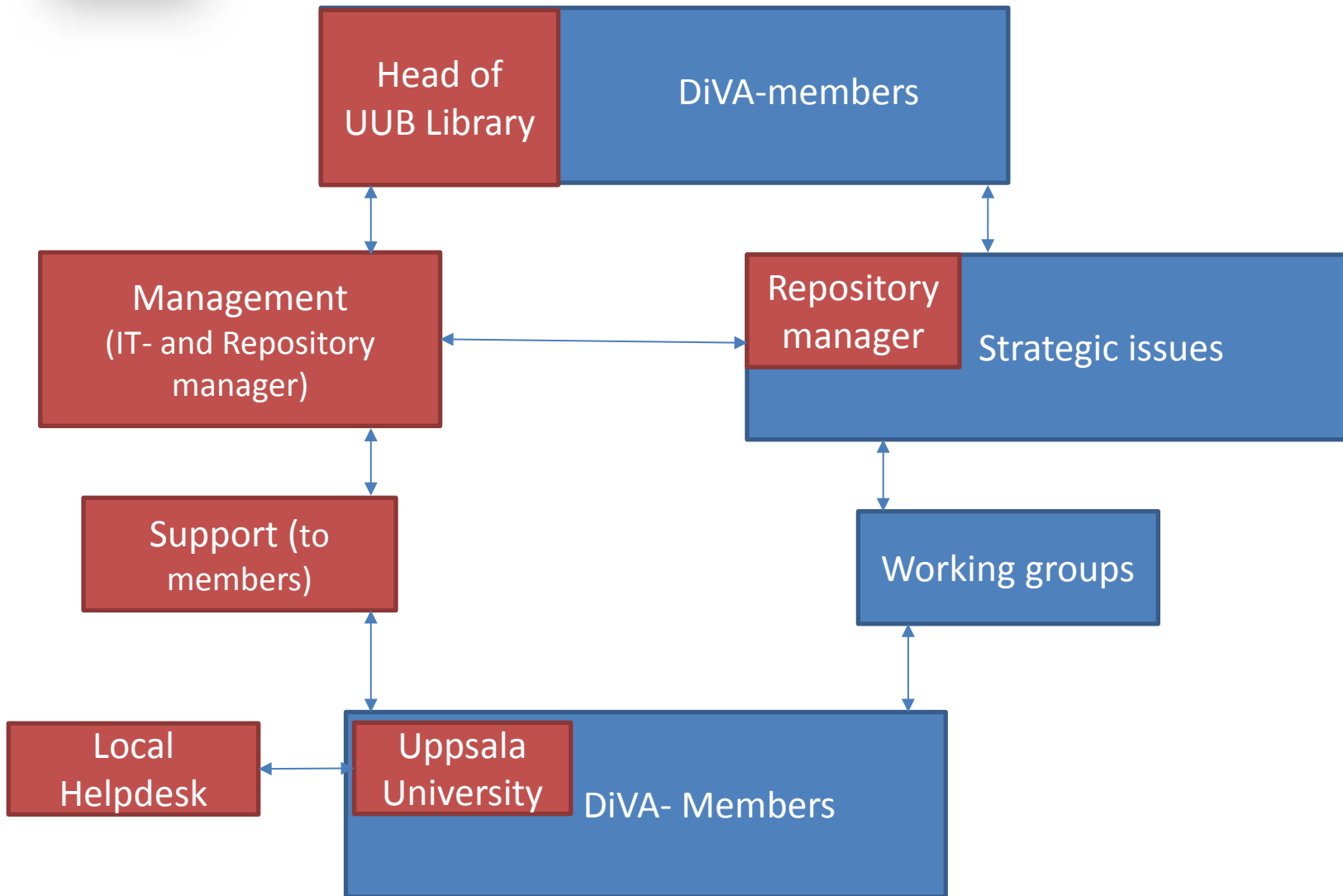
© 2000-2012 | Södertörn University | Södertörn University Library

© 2000-2012 | Stockholm University Library | DiVA Portal | DiVA Contact | DiVA Log in

DiVA



DiVA - Collaboration model





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How DiVA is used today

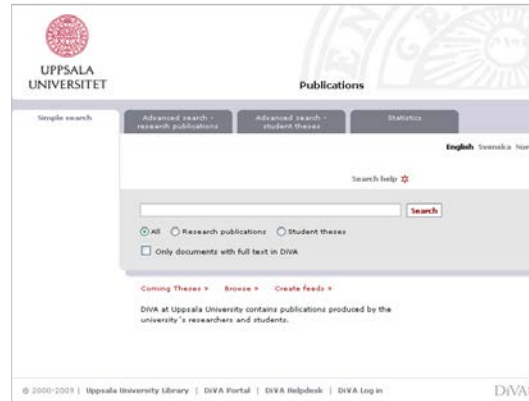
Open access
self-archiving 

Web pages

SwePub

Evaluation,
bibliometrics

dissertations.se
essay.se



Researcher CV

DRIVER/
OpenAIRE

Coming theses

Europeana

BASE

Print-on-demand

Scirus

Archive Package
Delivery Service

Google, Google Scholar etc.

Long-term storage, persistent links
(URN:NBN)



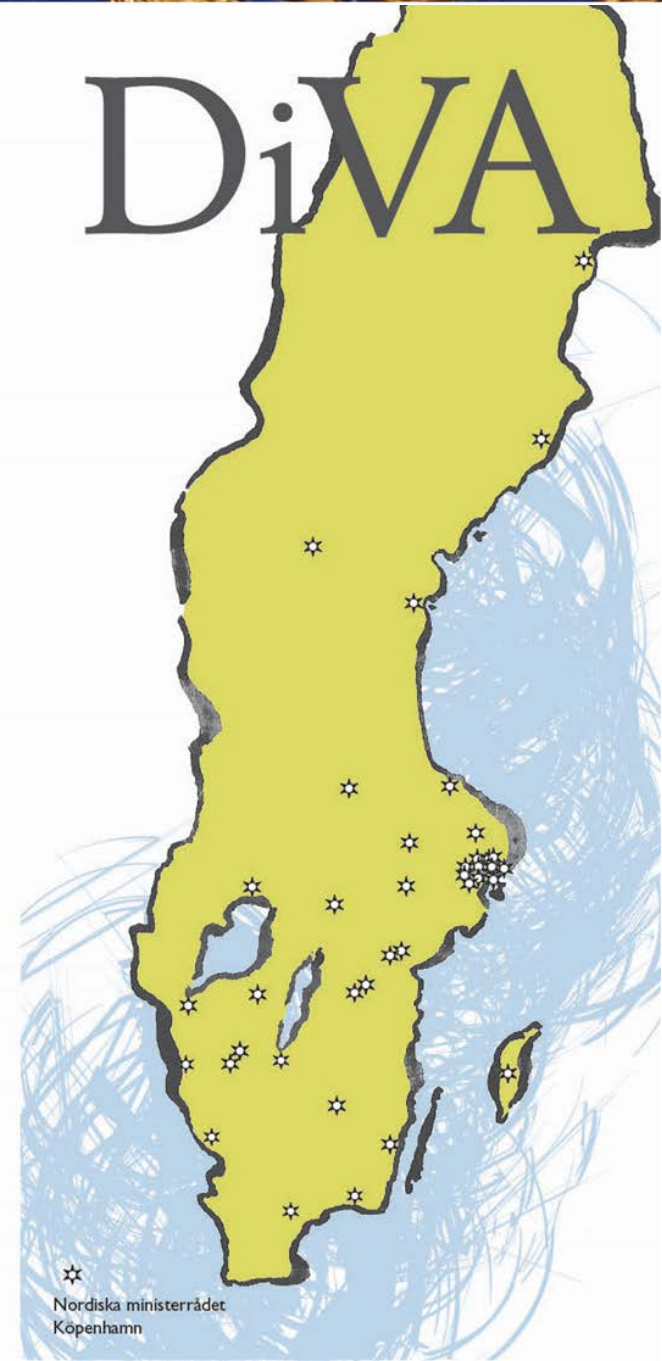
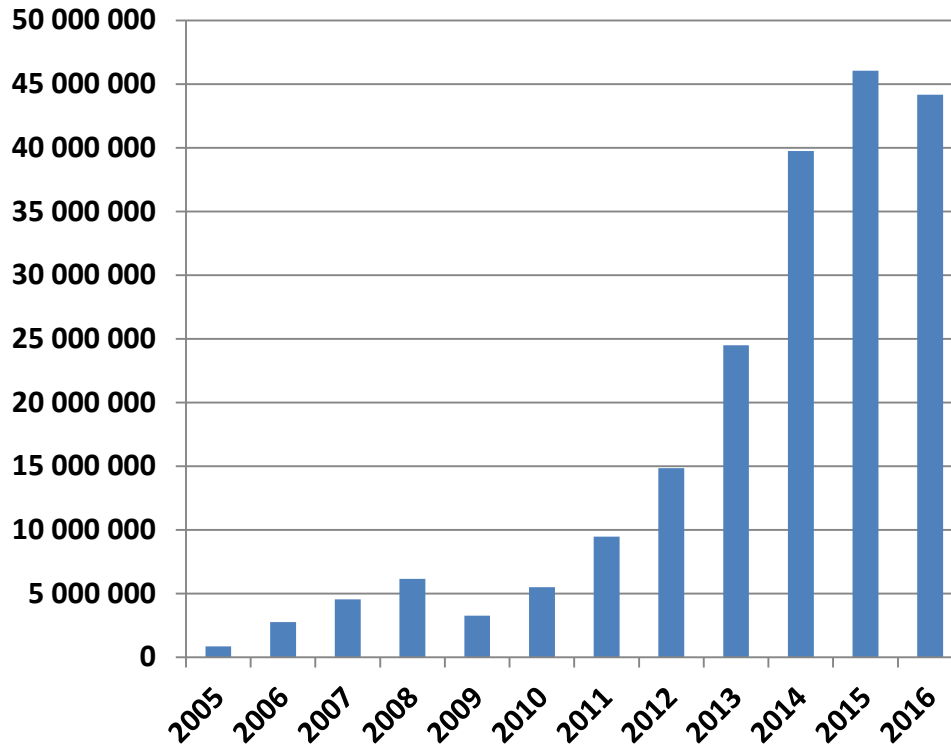
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Statistics

DiVA

(Millions)

Downloaded full texts



☆
Nordiska ministerrådet
Köpenhamn



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Today's OA policy from the Swedish Research Council

- **Publications**
 - All financed projects from 2010-
 - Articles and Conference papers
 - Open Access within 6 to 12 months (hum/sam)
 - From 2015 only OA articles are accepted
 - From 2017 all publications should have a CC-BY-licens
- **Research data – data publishing plan**
 - All project applications from 2012-
 - Requirements for a "data management plan" for research data for those projects where data collecting is a major part of the project.
 - Research data should "within reasonable time" be published OA



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National Guidelines

- January 2015: Proposal from Swedish Research Council

” Scientific publications and artistic works and research data connected to scientific publications resulting from publicly funded research should be openly available”

The Research Council proposes:

- Sweden should aim to publish everything OA by 2025
- Detailed guidelines should be decided 2020
- Some issues should be investigated more in detail until 2018



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National Guidelines

For **research data** the Research Council propose...

- Objective = Research data should be published OA as soon as possible
- Finance pilot studies 2015-2020
 - **Purpose** = to support planning and building the technical infrastructure at the universities
 - Except supporting infrastructure there will be needs for other expertise – unclear who is responsible of this...



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Swedish National Data Service (SND)

- Mandate is provided by the Swedish Research Council and covers research data in the social sciences, humanities and health sciences.
- Aiming to build a national infrastructure (consortia) for research data in Sweden
- Data Access Unit (curating metadata, support, educate) a place where different roles/functions merge.



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Research data - What does it mean for university libraries and DiVA?

- Different opinions/policies between universities (DiVA members)
 - Is research data something that libraries should deal with?
- Includes several organizational parts of the university (IT, archive, library, law)
- Researchers need to meet the demands of the funder, asking us about uploading research data to DiVA
- Some journals demand a link to published research data
- Report (2014) about the need for storage of research data at Uppsala University

?

- What to do in this situation of different policy documents, different preparedness locally and not yet ready long term guidelines?
- How to harmonise the technical system (DiVA) with the different levels of organisational preparedness?

Our ambition:

- Make DiVA a place where researchers can publish data sets
- Cooperate with those researchers and organisations who need things to happen.
- One step at a time



The specification

- You should specify whether it is primary data (measurement) or aggregated / processed data
- You should be able to link between records in DiVA
- You should be able to link between data sets in DiVA
- New roles need to be selectable (“data producer”) in DiVA
- When publishing data set there should be a link to a full text publication



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DataCite Metadata Scheme used as a guide for DiVA



Table 1: DataCite Mandatory Properties

ID	Property	Obligation
1	Identifier (with mandatory type sub-property)	M
2	Creator (with optional name identifier and affiliation sub-properties)	M
3	Title (with optional type sub-properties)	M
4	Publisher	M
5	PublicationYear	M
10	ResourceType (with mandatory general type description sub-property)	M

Table 2: DataCite Recommended and Optional Properties

ID	Property	Obligation
6	Subject (with scheme sub-property)	R
7	Contributor (with type, name identifier, and affiliation sub-properties)	R
8	Date (with type sub-property)	R
9	Language	O
11	AlternateIdentifier (with type sub-property)	O
12	RelatedIdentifier (with type and relation type sub-properties)	R
13	Size	O
14	Format	O
15	Version	O
16	Rights	O
17	Description (with type sub-property)	R
18	GeoLocation (with point, box and polygon sub-properties)	R
19	FundingReference (with name, identifier, and award related sub-properties)	O



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Release 2016-08-24

Version 2.18.0 **RELEASED**

📅 Start: 2016-06-09 Released: 2016-08-24 [Release Notes](#)

Personposter till testorganisationer **dataset**

Manage

Common settings

- Lock reviewed records
- Import field C1 from WoS
- Activate person records
- Activate data sets**
- Activate projects
- Activate external cooperation
- External cooperation is mandatory
- Show ISBN creating button multiple times



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Data sets in DiVA

Format of the comma separated file (csv) contained in the compressed archive:

```

Column 1: Case: Version id, always 1
Column 2: Case: Id (1,2 or 99999)
Column 3: Case: Rotation angle [degrees x 1000] (integer)
Column 4: Case: Translation along y-axis [micrometer] (integer)
Column 5: Case: X index of source rod
Column 6: Case: Y index of source rod
Column 7: Case: Energy of source gamma [eV] (integer)
Column 8: Field: Version id, always 1
Column 9: Field: Device number, always 1
Column 10: Field: Detector number (0-7)
Column 11: Histogram: Version id, always 2
Column 12: Histogram: Begin energy [eV] (integer)
Column 13: Histogram: End energy [eV] (integer)
Column 14-15: Histogram: Count vector serialized as specified below.
Column 16: Histogram: Overflow count (hexadecimal integer)
Column 17: Histogram: Underflow count (hexadecimal integer)

```

Cite Export

1 2 3 4 5 6 7 4 of 8

Link to record

<<Back to result list



Geant4 simulation results for the designed UGET-v1 tomographic measurement device.

Jansson, Peter

Uppsala University, Disciplinary Domain of Science and Technology, Physics, Department of Physics and Astronomy, Applied Nuclear Physics.

ORCID iD: 0000-0002-3136-5665

2016 (English)

Data set, Primary data

Abstract [en]

Results from simulations performed with Geant4 for the UGET v1 of a tomographic measurement device, designed in the UGET project.

Place, publisher, year

2016.

Version

1.0

Keyword [en]

Geant4, Tomography, Nuclear fuel, Safeguards, Simulation results

National Category

Subatomic Physics

Research subject

Physics with specialization in Applied Nuclear Physics

Identifiers

URN: urn:nbn:se:uu:diva-316175

OAI: oai:DiVA.org:uu-316175

DiVA: diva2:1077126

Open Access in DiVA



UGETv1_Geant4_Results.csv.zip(84256

kB)

16 downloads

Description of conten

Search in DiVA

By author/editor

Jansson, Peter

By organisation

Applied Nuclear Physics

On the subject

Subatomic Physics

The data set is referenced by

Smith, E., Jacobsson Svård, S., Mozin, V., Jansson, P., Miller, E., Honkamaa, T., . . . Vaccaro, S. (2016). A Viability Study of Gamma Emission Tomography for Spent Fuel Verification: JNT 1955 Phase I Technical Report. .

Search outside of DiVA



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Versions and Relations

← Back Cancel Continue →

Selected publication type: Data set

Not mandatory

Version (specified by numbers 1.0, 1.1, 2.0 etc):

The publication (data set) is referenced by other publications in DiVA Smith, Eric et al.. A Viability Study of Gamma Emission Tomography for Spent Fuel Verification: JNT 1955 Phase I Technical Report. 2016. x

Not mandatory

Create links to related publications in DiVA

Links within the repository.
Connecting digital objects

Create links to related publications in DiVA

Choose a relation

- The publication (data set) is part of other publications registered in DiVA
- The publication (data set) has other parts, also published in DiVA
- The publication (data set) is referenced by other publications in DiVA

Add publication Logged in as Urban Ericsson (sysAdmin) Log out Language

Select publication type --> Enter information --> Upload files --> Review / Publish -->

← Back Cancel Continue →

My drafts

Select publication type ?

Data set

Create a new data set

Create a different version of an existing data set

-

-

Is new version of

Is previous version of

You can also go to your drafts.
Select *My drafts*.

← Back Cancel Continue →

If choosing a new or previous version the metadata from that version can be used also for this registration.

Upload file from URL (Upload files larger than 1 GB via URL. 16 GB is the maximum size per file.)

Upload

Upload via URL
Maximum 16 GB

Upload file ?

Title:
Geant4 simulation results for the designed UGET-v1 tomographic measurement device.

When should the file be made freely available? *

Make freely available now (open access)

Make freely available later

Only for archiving

Date:

Decide when to publish the file



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New roles and relations

Collaborator

Contributor: person responsible for collecting, managing, distributing, or otherwise contributing to the development of the resource.

Data Collector: Person responsible for finding, gathering/collecting data under the guidelines of the author(s). May also use when crediting survey conductors, interviewers, event or condition observers, person responsible for monitoring key instrument data.

Data Curator: Person tasked with reviewing, enhancing, cleaning, or standardizing metadata and the associated data submitted for storage, use, and maintenance within a data center or repository.

Data Manager: Person responsible for maintaining the finished resource.

Creator ?

[Choose different authority record »](#)

Authority record:

Ericsson, Urban; 1969; uu-urbaeric; 0000-0001-6885-9290; authority-person:11685 x

[Get saved personal data »](#)

[Save personal data »](#)

Last name: *

Ericsson

Year of birth:

1969

Year of death:

First name: *

Urban

Local User Id:

urbaeric

ORCID: What is ORCID? Register for an ORCID

0000-0001-6885-9290

Department, unit or programme:

[Choose organisation »](#)

Universitetsbiblioteket, University Library x

Research group:

E-mail:

Other organisation:

[Another creator »](#)

Collaborator ?

[Add collaborator »](#)



Summary

- New Output - Datasets and relations/links to other versions and other publications. The repository will represent new parts of the researching process
- New Knowledge – Repositories become a node also for research data. The repository used for text mining?
- New Occupations – New roles and collaborations are needed to insure quality for data sets. In the case of DiVA we need to build the repository for different realities.



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Thank you!