The current state of CRIS-IR interoperability at the University of Porto

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4th Annual Meeting of COAR
May 7-8, 2013
İstanbul, Özyeğin University Library, Turkey
Contents

- The University of Porto (U.Porto)
- U.Porto Repository
- The information system SIGARRA
- SIGARRA and scholarly research
- Interoperability CRIS–IR
- Data curation project
- Future work
The University of Porto

- Public research University
- Origins dating back to the eighteenth century
- 3 campus, 14 faculties, 1 business school, +60 R&D units
- ~31,500 students, 2300 professors and researchers, 1700 staff
- +600 education and training programmes
Welcome to the Repository of the University of Porto!

The U.Porto Repository is a service of the University of Porto which aims to aggregate its institutional repositories: the Open Repository, that collects, preserves and provides the intellectual production, in full text and open access, of the academic community of U.Porto; the Thematic Repository, that stores, preserves and provides informational resources produced by U.Porto in definite areas or for specific audiences; and the Data Repository, that stores, preserves and shares datasets created by researchers of U.Porto.

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For further information please visit the option FAQ available at the left side of the following pages or contact the helpdesk@reit.up.pt.
U.Porto OA Repository

**U.PORTO Open Access Repository**

*Publications 2008-2013*

**U.Porto OA Policy**

*Sep. 2008*
All U.Porto faculties are using the IS SIGARRA

SIGARRA

Front-Office (CRIS +)

Primavera
Financial Management

DSpace
Content Management

GA
Student Management

GRH
Human Res. Management

Moodle
Learning Management

Aleph
Library Management

Radius
LDAP
Identity Management

Oracle DBMS
WF engine
App. Server

Unidirectional info flow
Bidirectional info flow
SIGARRA :: R&D+I

- Institutional page of each professor/researcher
- Areas of interest (CORDIS)
- Thesis orientation
- Publications
- Projects
- Curricula and activities report
- Assessment
- Equipments & labs (information and booking)
- Connection to library catalog & B-on
Interoperability CRIS-IR

José Fernando Oliveira

Contacts
- Name: José Fernando da Costa Oliveira
- Acronym: JFO
- Code: 209980
- Status: Active

Personal Presentation

My main area of scientific activity is Operations Research and Management Science. Within Operations Research my main application area are the Cutting and Packing Problems, while on the technical viewpoint my research is centered in the use and development of Metaheuristics approaches.

Cutting and Packing problems are hard combinatorial optimization problems that arise under several practical contexts, whenever big pieces of raw material have to be cut into smaller items, or small items have to be packed inside a larger container, so that waste is minimized. These problems lack hard geometric constraints when dealing with the optimization layer. I have also worked on Vehicle Routing Problem, My research on Lot sizing and Scheduling problems in industrial contexts mainly builds on my expertise on Metaheuristics.

Articles in International Scientific Magazines

- Maria Correia, José Fernando Oliveira, José Soeiro Ferreira
  Integrated resolution of assignment, sequencing and cutting problems in paper production planning

- Ana Carla Madeira, Maria Antónia Carravilla, José F. Oliveira, Carlos A. V. Costa
  A Methodology for Sustainability Evaluation and Reporting in Higher Education Institutions

- Pedro M. Castro, Jose F. Oliveira
  Scheduling Insold models for two-dimensional packing problems

- Bernardo Sobrinho Simões de Almada Lobo, Diego Khlebt, Maria Antónia da Silva Lopes de Carravilla, José Fernando da Costa Oliveira
  Multiple Machine Continuous Setup Lotsizing with Sequence-dependent Setups

Migration of Full Text & OA publications (and thesis )
Extract ISI WoS/SCOPUS Publications

CRIS (SIGARRA)
Projects, Publications and Data

Dados Gerais
- Código: 64393
- Referência: 295162
- Nome Curto: EnvICOP
- Título: Environmentally Friendly Coastal Protection in a Changing Climate
- N° de Instituições Participantes: 3

Âmbito
- Tipo: Projeto Financiado
- Âmbito Geográfico: Internacional
- Tipo de Ação: Não Definido

Financiamento
- Programa: 7.º Programa Quadro de IDI
- Instituição Financiadora: COMISSÃO EUROPEIA
- âmbito Geográfico Financeiro: Internacional

Calendarização
- Data de início Efetivo: 2012-05-01
- Data de Conclusão Prevista: 2015-04-31

Documentos
- Não existem Documentos associados ao Projeto.

Publicações associadas ao Projeto
- Não existem Publicações associadas ao Projeto.

Instituições Participantes no Projeto

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<th>Nome Instituição</th>
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<th>País</th>
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<th>Participação</th>
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<td>Itália</td>
<td>Universidade</td>
<td>Coordenador</td>
<td>Francisco Taveira Pinto</td>
<td><a href="mailto:fpiot@fe.up.pt">fpiot@fe.up.pt</a></td>
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<tr>
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U.Porto :: Data Curation Project

Data audit
- Interviews with researchers
- Identifying use cases
- Collecting data samples

Workflow design
- Specifying curation workflow
- Defining metadata requirements

Build a platform
- Choice of a platform
- Customising DSPACE

Deposit of datasets
- Storing datasets in XML formats
- Depositing and retrieving in Excel format
## Use cases for research data

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<tr>
<th>Domain</th>
<th>Dataset</th>
<th>Access</th>
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<tr>
<td>Astronomy</td>
<td>Gravimetry</td>
<td>Free</td>
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<td>Chemical Engineering</td>
<td>Pollutant analysis</td>
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<td>Mechanical Engineering</td>
<td>Material fracture</td>
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<td>Ecology</td>
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Metadata mostly nonexistent

- Publication
- Re-use within a group
- Use in industry
- Search data
- Important for reuse
Data Repository

Data + Metadata in Excel format
demonstration videos

DSpace

• Explore
• Filter
• Download just what you need
Welcome to U.Porto's Research Data Repository!

The Data Repository is a prototype of a platform for collecting, preserving and sharing datasets produced by research groups at U.Porto. U.Porto aims to answer some of the needs identified together with its researchers, offering them the possibility of registering datasets, researching contents and respective metadata and generating subsets of data.

Search
Enter some text in the box below to search DSpace.

Communities in DSpace
Choose a community to browse its collections.

Astronomic Observatory (FCUP)
Department of Informatics Engineering (FEUP)

Item hits:

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<th>Title</th>
<th>Author(s)</th>
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<td>Configuration files for the data processing program</td>
<td>Bastos, Luisa; Deurloo, Richard</td>
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<td>4-Oct-2011</td>
<td>GPS Solutions used in data processing</td>
<td>Bastos, Luisa; Deurloo, Richard</td>
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<td>Base Data (Reference Stations) from the Aereal Gravimetry Run over the Azores (1992)</td>
<td>Bastos, Luisa; Deurloo, Richard</td>
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<td>4-Oct-2011</td>
<td>Final Results of the gravimetry runs</td>
<td>Bastos, Luisa; Deurloo, Richard</td>
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**Operational Research dataset**

Please use this identifier to cite or link to this item: [http://hdl.handle.net/123456789/11](http://hdl.handle.net/123456789/11)

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| **dc.contributor.author** | Carravilla, Maria Antónia  
| **dc.contributor.author** | Ribeiro, Cristina  
| **dc.date.accessioned** | 2011-12-19T11:44:06Z  
| **dc.date.available** | 2011-12-19T11:44:06Z  
| **dc.date.issued** | 2011-12-19  
| **dc.identifier.uri** | [http://hdl.handle.net/123456789/11](http://hdl.handle.net/123456789/11)  
| **dc.description.abstract** | Nesting problems are combinatorial problems that can be captured with several models. These data describe the results of running several well-known instances of the problem using three models: a MIP model with X and Y decision variables, a CLP model with X and Y finite-domain variables and a MIP model with discretized board points as decision variables. |
| **dc.subject** | Nesting problems  
| **dc.subject** | Operational Research  
| **dc.title** | Experiments with X-Y MIP, X-Y CLP and Dotted-Board MIP models for the Nesting Problem  
| **dc.type** | Dataset  

Appears in Collections: [Operational research datasets](http://hdl.handle.net/123456789/11)

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[Show simple item record](http://hdl.handle.net/123456789/11)
U.Porto:: Research workflow

By now

Data → Publication → CRIS–IR

In the future

Data ← Publication ← Repositório
Future Work

- Gather feedback on the data repository extension from the group of researchers who have been interviewed

- Additional features of the repository
  - Fine-grained data access control
  - Data dissemination through standard representations (OAIS…)

- Dataset-level metadata
  - DCMI – Science Metadata

- Features of a data management service for U.Porto
  - Require further exploration

- Data management policy for U.Porto
  - Can be informed by current work