

# ORE Resource Map Implementation in METS

## DRAFT PROPOSAL

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This document describes one possible ORE Resource Map serialization into a METS structMap.

### METS Descriptive Metadata Sections

Metadata about the Resource Map, Aggregation, and other resources are divided into their own dmdSec elements. In keeping with the RDF-centric nature of ORE, these metadata are being represented using the RDF XML syntax wrapped in the dmdSec. The mdWrap element must have these attributes: MDTYPE="OTHER" OTHERMDTYPE="RDF" MIMETYPE="application/rdf+xml".

#### Resource Map Metadata

Metadata about the Resource Map (URI-R) which cannot be represented directly in the fileSec or structMap elements are contained in a dmdSec which is referenced from the root div element of the structMap. The outer-subject for all the RDF triples contained in this dmdSec must be the Resource Map itself as identified by the URI-R.

The following is a simple Resource Map dmdSec example:

```
<dmdSec ID="R-d1e3">
<mdWrap MDTYPE="OTHER" OTHERMDTYPE="RDF" MIMETYPE="application/rdf+xml">
  <xmlData>
    <rdf:Description rdf:about="http://arxiv.org/rem/mets/astro-ph/0601007#SM-d1e3">
      <rdf:type rdf:resource="http://www.openarchives.org/ore/terms/ResourceMap"/>
      <dc:format>application/xml</dc:format>
      <dcterms:created>2008-10-01T18:30:02Z</dcterms:created>
      <dcterms:modified>2008-10-03T07:30:34Z</dcterms:modified>
      <dc:rights>This Resource Map is available under the Creative Commons Attribution-NonCommercial
      <dcterms:creator rdf:parseType="Resource">
        <foaf:name>arXiv.org e-Print Repository</foaf:name>
        <foaf:page rdf:resource="http://arXiv.org"/>
      </dcterms:creator>
    </rdf:Description>
  </xmlData>
</mdWrap>
</dmdSec>
```

#### Aggregation Metadata

Metadata about the Aggregation (URI-A) which cannot be represented directly in the fileSec or structMap elements are contained in the dmdSec which is referenced from the third-level div with a TYPE of 'Aggregation'. The outer-subject for all the RDF triples contained in this dmdSec must be the Aggregation as identified by the URI-A.

The following is a simple Aggregation dmdSec example:

```
<dmdSec ID="A-d1e3">
<mdWrap MDTYPE="OTHER" OTHERMDTYPE="RDF" MIMETYPE="application/rdf+xml">
  <xmlData>
    <rdf:Description rdf:about="http://arxiv.org/aggregation/astro-ph/0601007">
      <rdf:type rdf:resource="http://www.openarchives.org/ore/terms/Aggregation"/>
      <dcterms:creator rdf:parseType="Resource">
        <foaf:name>Hui Li</foaf:name>
        <foaf:inbox rdf:resource="mailto:lihui@somewhere.cn"/>
      </dcterms:creator>
      ...
      <dcterms:created>2005-12-31T04:01:23Z</dcterms:created>
      <dcterms:modified>2006-01-18T06:16:15Z</dcterms:modified>
    </rdf:Description>
```

```

    </xmlData>
  </mdWrap>
</dmdSec>

```

## Aggregated Resources and Other Resources Metadata

Additional metadata about the Aggregated Resources and other resources connected with the Aggregation may be contained in other dmdSec elements. These dmdSec elements must be referenced from the div which represents the resource which is either a subject or object of the metadata. Because these metadata are being expressed as RDF it is acceptable and in some cases preferable to have all the extra metadata about all these resources contained in a single dmdSec which is referenced from each relevant div element. However, the metadata about individual resources may be segregated into individual dmdSec elements if desired.

The following is a simple extra metadata dmdSec example:

```

<dmdSec ID="O-d1e3">
<mdWrap MDTYPE="OTHER" OTHERMDTYPE="RDF" MIMETYPE="application/rdf+xml">
  <xmlData>
    <rdf:Description rdf:about="http://arxiv.org/abs/astro-ph/0601007">
      <rdf:type rdf:resource="info:eu-repo/semantics/humanStartPage"/>
    </rdf:Description>
    <rdf:Description rdf:about="info:eu-repo/semantics/humanStartPage">
      <rdfs:label>humanStartPage</rdfs:label>
      <rdfs:isDefinedBy rdf:resource="info:eu-repo/semantics/" />
    </rdf:Description>
    <rdf:Description rdf:about="http://oreproxy.org/r?what=http://arxiv.org/abs/astro-ph/0601007&am">
      <ore:proxyFor rdf:resource="http://arxiv.org/abs/astro-ph/0601007"/>
      <ore:proxyIn rdf:resource="http://arxiv.org/aggregation/astro-ph/0601007"/>
    </rdf:Description>
    ...
  </xmlData>
</mdWrap>
</dmdSec>

```

## METS File Section

Each resource which is part of the Resource Map, including the Resource Map itself, the Aggregation, Aggregated Resources, and any other resources with relationships to these must have a file element in the METS fileSec. The URIs to these resources must be contained in the xlink:href attribute of an FLocat element beneath each file element. The FLocat element must have an OTHERLOCTYPE attribute of 'URI'. Note that the Resource Map URI-R is the URI of the METS file itself with a fragment identifier pointing to the ID attribute of the structMap representing the Resource Map. Technical metadata about the resources may be represented by various attributes of the file element, as appropriate. See Table 1 for details.

The following is a simple fileSec which illustrates the above:

```

<fileSec>
  <fileGrp>
    <file ID="d1e3">
      <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
        xlink:href="http://arxiv.org/rem/mets/astro-ph/0601007#SM-d1e3"/>
    </file>
    <file ID="d1e19">
      <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
        xlink:href="http://arxiv.org/aggregation/astro-ph/0601007"/>
    </file>
    <file ID="d1e57">
      <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI" xlink:href="info:arxiv/astro-ph/0601007"/>
    </file>
    <file ID="d1e59">
      <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
        xlink:href="info:doi/10.1142/S0217732306019475"/>
    </file>
    <file ID="d1e64" MIMETYPE="application/rdf+xml">
      <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
        xlink:href="http://arxiv.org/rem/rdf/astro-ph/0601007"/>
    </file>
    ...
  </fileGrp>
</fileSec>

```

## METS Structure Map

A structMap whose root div element has a TYPE attribute of 'Resource Map' is the Resource Map. This structMap must have an ID attribute. The URI-R of the Resource Map is the URI of the METS document along with a fragment identifier whose value is the ID of this structMap.

The relationships between the Resource Map, the Aggregation, the Aggregated Resources, and all other resources is represented by the structMap. The div elements in the structMap use a striped syntax to represent relationships between resources. The outer div represent a resource which is the subject of a relationship, the second-level div presents a type of relationship, and the third-level div represents the resource which is the object of the relationship. However, the third-level div may also be the subject of a different relationship so that you can continue to nest div elements in this pattern to represent arbitrary graphs of relationships between resources. The div elements which represent resources must have a TYPE attribute from a controlled vocabulary naming the type of the resource. A TYPE value of 'Resource' must be used if no more specific value is available. The resource div elements may also have a LABEL attribute providing a human-readable name for the resource. The resource div elements must also have a fptr child that points to a file element which contains the URI of the resource. The div elements which represent relationships must have a LABEL attribute from a controlled vocabulary naming the relationship.

The controlled vocabulary used for these resource TYPE and relationship LABEL attribute values comes from various RDF properties and types in the ORE, Dublin Core, and RDF schema. Currently, the human-readable values for these are being used, derived from the rdfs:label property in the various RDF schema. This works because there are currently no name collisions between these schema. However, if other schema are introduced collisions are a possibility in which case the URI values for these properties and types should be used. [Example METS documents](#) using both the labels and the URIs are provided with this document.

As already mentioned, the root div element represents the Resource Map itself. It must have an ID attribute, a TYPE attribute with a value of 'Resource Map,' and a DMDID that [points to a dmdSec containing the metadata about the Resource Map](#). The root div element must have a fptr child which references a file element containing the URI of the Resource Map. The root div element's second-level child div elements represent the relationships for which the Resource Map is the subject. The Resource Map may have relationships to resources such as a to a Creative Commons Rights Statement, but the Resource Map must have a 'Describes' relationship to exactly one Aggregation. This relationship is represented as a second-level div with a LABEL attribute of 'Describes'.

The Aggregation is represented as a third-level div beneath the 'Describes' relationship div. The Aggregation div must have a TYPE attribute of 'Aggregation' and a DMDID attribute that [points to a dmdSec containing metadata about the Aggregation](#). It must also have an fptr child element that references a file element containing the URI of the Aggregation. The fourth-level divs beneath the Aggregation represent the relationships for which the Aggregation is the subject. The Aggregation can have multiple different types of relationships to other resources such as resources that reference the Aggregation or to other Resource Maps which describe the Aggregation. However, the Aggregation must have an 'Aggregates' relationship to all the Aggregated Resources which make up the Aggregation. The 'Aggregates' relationship is represented by a fourth-level div beneath the Aggregation div. This div must have a LABEL attribute of 'Aggregates'. The fifth-level div elements beneath this div represent the Aggregated Resources. These div elements must have a TYPE attribute of 'Aggregated Resource'. They may have a LABEL attribute which is the human-readable title of the resource, and they must have an fptr child that points to a file element containing the URI of the resource.

Besides just the Resource Map and Aggregation div elements, and div elements which represent other resources may also have a DMDID attribute that [points to one or more dmdSec elements containing metadata about that resource](#). It is acceptable for multiple resource div elements to point to the same dmdSec so long as that dmdSec contains metadata for which the resource is either the subject or object. Since all metadata in these dmdSec elements must be represented RDF XML it can be easier to just bundle all the extra metadata about the various resources into one dmdSec. In other words, for each Resource Map structMap there might be just three dmdSec elements, one for the Resource Map, one for the Aggregation, and one for the metadata about all other resources.

The following is a simple structMap which illustrates the key points described above:

```
<structMap ID="SM-d1e3">
  <div TYPE="Resource Map" DMDID="R-d1e3">
    <fptr FILEID="d1e3"/>
    <div LABEL="Rights">
      <div TYPE="Rights Statement">
        <fptr FILEID="d1e19"/>
      </div>
    </div>
    <div LABEL="Describes">
      <div TYPE="Aggregation" DMDID="A-d1e3">
        LABEL="Parametrization of K-essence and Its Kinetic Term">
          <fptr FILEID="d1e19"/>
          <div LABEL="seeAlso">
            <div TYPE="Resource" DMDID="O-d1e3">
```

```

        <fptr FILEID="d1e68"/>
    </div>
</div>
<div LABEL="Is Referenced By">
    <div TYPE="Resource"
        LABEL="How the Scalar Field of Unified Dark Matter Models Can Cluster">
        <fptr FILEID="d1e83"/>
    </div>
    <div TYPE="Resource"
        LABEL="Cosmological scalar fields that mimic the $\Lambda$ CDM cosmological model">
        <fptr FILEID="d1e85"/>
    </div>
</div>
<div LABEL="Aggregates">
    <div TYPE="Aggregated Resource"
        LABEL="[astro-ph/0601007] Parametrization of K-essence and Its Kinetic Term"
        DMDID="O-d1e3">
        <fptr FILEID="d1e161"/>
    </div>
    <div TYPE="Aggregated Resource"
        LABEL="Parametrization of K-essence and Its Kinetic Term"
        DMDID="O-d1e3">
        <fptr FILEID="d1e163"/>
    </div>
    ...
</div>
<div LABEL="Is Described By">
    <div TYPE="Resource Map">
        <fptr FILEID="d1e64"/>
    </div>
    <div TYPE="Resource Map"
        LABEL="Atom Resource Map for 'Parametrization of K-essence and Its Kinetic Term'">
        <fptr FILEID="d1e107"/>
    </div>
</div>
</div>
</div>
</div>
</structMap>

```

### Detailed Mapping

The following table provides a more detailed mapping between the METS structMap described in this document and the ORE model.

Table 1: The elements of a METS document used to express an ORE Resource Map, and the associated RDF Triples

METS	METS XPath	ORE Abstract Model and RDF Triples
A structMap root div element with a TYPE='Resource Map' references a file whose href is the URI of the Resource Map.	//file[@ID=//structMap/div [@TYPE="Resource Map"]/fptr/@FILEID]/FLocat/@xlink:href	URI-R
The structMap third-level div with a TYPE="Aggregation" and a parent div with a LABEL="Describes" references a file whose href is the URI of the Aggregation.	//file[@ID=//structMap/div[@TYPE="Resource Map"]/div[@LABEL='Describes']/div[@TYPE='Aggregation']/fptr/@FILEID]/FLocat/@xlink:href	URI-A
The structMap fifth-level div with a TYPE="Aggregated Resource" and a parent div with a LABEL="Aggregates" and a grandparent div with a TYPE="Aggregation" references a file whose href is the URI of the Aggregated Resource.	//file[@ID=//structMap/div[@TYPE="Resource Map"]/div[@LABEL='Describes']/div[@TYPE='Aggregation']/div[@LABEL='Aggregates']/div[@TYPE='Aggregated Resource']/fptr/@FILEID]/FLocat/@xlink:href	URI-AR
TODO: Finish this table...		

### Extended Example

The following is a complete example METS document. This sample corresponds to the [Extended Example from the Resource Map Implementation in Atom](#) and was derived from this [Atom ReM](#) by using an [XSLT transformation](#). This example can be downloaded

from [here](#). This example is also [available](#) where URIs have been used for the LABEL and TYPE attribute controlled vocabularies. TODO: Provide a minimal example/template.

```

<mets xmlns:oreatom="http://www.openarchives.org/ore/atom/"
xmlns:foaf="http://xmlns.com/foaf/0.1/"
xmlns:xlink="http://www.w3.org/1999/xlink"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:dcterms="http://purl.org/dc/terms/"
xmlns="http://www.loc.gov/METS/"
xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
xmlns:atom="http://www.w3.org/2005/Atom"
xmlns:dc="http://purl.org/dc/elements/1.1/"
xmlns:ore="http://www.openarchives.org/ore/terms/"
xsi:schemaLocation="http://www.loc.gov/METS/ http://www.loc.gov/standards/mets/mets.xsd">
<dmdSec ID="R-d1e3">
<mdWrap MDTYPE="OTHER" OTHERMDTYPE="RDF" MIMETYPE="application/rdf+xml">
  <xmlData>
    <rdf:Description rdf:about="http://arxiv.org/rem/mets/astro-ph/0601007#SM-d1e3">
      <rdf:type rdf:resource="http://www.openarchives.org/ore/terms/ResourceMap"/>
      <dc:format>application/xml</dc:format>
      <dcterms:created>2008-10-01T18:30:02Z</dcterms:created>
      <dcterms:modified>2008-10-03T07:30:34Z</dcterms:modified>
      <dc:rights>This Resource Map is available under the Creative Commons Attribution-Noncommerc
      <dcterms:creator rdf:parseType="Resource">
        <foaf:name>arXiv.org e-Print Repository</foaf:name>
        <foaf:page rdf:resource="http://arXiv.org"/>
      </dcterms:creator>
    </rdf:Description>
  </xmlData>
</mdWrap>
</dmdSec>
<dmdSec ID="A-d1e3">
<mdWrap MDTYPE="OTHER" OTHERMDTYPE="RDF" MIMETYPE="application/rdf+xml">
  <xmlData>
    <rdf:Description rdf:about="http://arxiv.org/aggregation/astro-ph/0601007">
      <rdf:type rdf:resource="http://www.openarchives.org/ore/terms/Aggregation"/>
      <dcterms:creator rdf:parseType="Resource">
        <foaf:name>Hui Li</foaf:name>
        <foaf:mbox rdf:resource="mailto:lihui@somewhere.cn"/>
      </dcterms:creator>
      <dcterms:creator rdf:parseType="Resource">
        <foaf:name>Zong-Kuan Guo</foaf:name>
      </dcterms:creator>
      <dcterms:creator rdf:parseType="Resource">
        <foaf:name>Yuan-Zhong Zhang</foaf:name>
      </dcterms:creator>
      <rdf:type>
        <rdf:Description rdf:about="http://purl.org/eprint/type/JournalArticle">
          <rdfs:label>Journal Article</rdfs:label>
          <rdfs:isDefinedBy rdf:resource="http://purl.org/eprint/type/" />
        </rdf:Description>
      </rdf:type>
      <dcterms:created>2005-12-31T04:01:23Z</dcterms:created>
      <dcterms:modified>2006-01-18T06:16:15Z</dcterms:modified>
      <dcterms:abstract>We construct the non-canonical kinetic term of a k-essence field directly
effective equation of state function  $\omega_k(z)$ , which describes the properties of the dark
energy. Adopting the usual parametrizations of equation of state we numerically reproduce
the shape of the non-canonical kinetic term and discuss some features of the constructed
form of k-essence.</dcterms:abstract>
      <dcterms:audience rdf:parseType="Resource">
        <rdf:value>OCLC audience level 1: research</rdf:value>
      </dcterms:audience>
    </rdf:Description>
  </xmlData>
</mdWrap>
</dmdSec>
<dmdSec ID="O-d1e3">
<mdWrap MDTYPE="OTHER" OTHERMDTYPE="RDF" MIMETYPE="application/rdf+xml">
  <xmlData>
    <rdf:Description rdf:about="http://arxiv.org/abs/astro-ph/0601007">
      <rdf:type rdf:resource="info:eu-repo/semantics/humanStartPage"/>
    </rdf:Description>
    <rdf:Description rdf:about="info:eu-repo/semantics/humanStartPage">
      <rdfs:label>humanStartPage</rdfs:label>
      <rdfs:isDefinedBy rdf:resource="info:eu-repo/semantics/" />
    </rdf:Description>
    <rdf:Description rdf:about="http://oreproxy.org/r?what=http://arxiv.org/abs/astro-ph/0601007&a

```

```

    <ore:proxyFor rdf:resource="http://arxiv.org/abs/astro-ph/0601007"/>
    <ore:proxyIn rdf:resource="http://arxiv.org/aggregation/astro-ph/0601007"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://arxiv.org/ps/astro-ph/0601007">
    <dcterms:hasFormat rdf:resource="http://arxiv.org/pdf/astro-ph/0601007"/>
    <dcterms:hasFormat rdf:resource="http://arxiv.org/ps/astro-ph/0601007&dpi=600&font=">
    <dcterms:hasFormat rdf:resource="http://arxiv.org/ps/astro-ph/0601007&dpi=300&font=">
    <dcterms:hasFormat rdf:resource="http://arxiv.org/ps/astro-ph/0601007&fname=cm&font=">
    <dcterms:hasFormat rdf:resource="http://arxiv.org/dvi/astro-ph/0601007"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://oreproxy.org/r?what=http://arxiv.org/ps/astro-ph/0601007&an">
    <ore:proxyFor rdf:resource="http://arxiv.org/ps/astro-ph/0601007"/>
    <ore:proxyIn rdf:resource="http://arxiv.org/aggregation/astro-ph/0601007"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://arxiv.org/pdf/astro-ph/0601007">
    <dcterms:conformsTo rdf:resource="info:pronom/fmt/18"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://oreproxy.org/r?what=http://arxiv.org/pdf/astro-ph/0601007&a">
    <ore:proxyFor rdf:resource="http://arxiv.org/pdf/astro-ph/0601007"/>
    <ore:proxyIn rdf:resource="http://arxiv.org/aggregation/astro-ph/0601007"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://oreproxy.org/r?what=http://arxiv.org/ps/astro-ph/0601007%26">
    <ore:proxyFor rdf:resource="http://arxiv.org/ps/astro-ph/0601007&dpi=600&font=bitma">
    <ore:proxyIn rdf:resource="http://arxiv.org/aggregation/astro-ph/0601007"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://oreproxy.org/r?what=http://arxiv.org/ps/astro-ph/0601007%26">
    <ore:proxyFor rdf:resource="http://arxiv.org/ps/astro-ph/0601007&dpi=300&font=bitma">
    <ore:proxyIn rdf:resource="http://arxiv.org/aggregation/astro-ph/0601007"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://oreproxy.org/r?what=http://arxiv.org/ps/astro-ph/0601007%26">
    <ore:proxyFor rdf:resource="http://arxiv.org/ps/astro-ph/0601007&fname=cm&font=Type">
    <ore:proxyIn rdf:resource="http://arxiv.org/aggregation/astro-ph/0601007"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://oreproxy.org/r?what=http://arxiv.org/dvi/astro-ph/0601007&a">
    <ore:proxyFor rdf:resource="http://arxiv.org/dvi/astro-ph/0601007"/>
    <ore:proxyIn rdf:resource="http://arxiv.org/aggregation/astro-ph/0601007"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://export.arxiv.org/oai2?verb=GetRecord&metadataPrefix=oai">
    <dcterms:conformsTo rdf:resource="http://www.openarchives.org/OAI/2.0/oai_dc/">
    <rdf:type rdf:resource="info:eu-repo/semantics/descriptiveMetadata"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://oreproxy.org/r?what=http://export.arxiv.org/oai2?verb%3dGet">
    <ore:proxyFor rdf:resource="http://export.arxiv.org/oai2?verb=GetRecord&metadataPrefix=">
    <ore:proxyIn rdf:resource="http://arxiv.org/aggregation/astro-ph/0601007"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://oreproxy.org/r?what=http://arxiv.org/cits/astro-ph/0601007&">
    <ore:proxyFor rdf:resource="http://arxiv.org/cits/astro-ph/0601007"/>
    <ore:proxyIn rdf:resource="http://arxiv.org/aggregation/astro-ph/0601007"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://www.citebase.org/abstract?id=oai:arXiv.org:astro-ph/0601007">
    <dcterms:creator rdf:parseType="Resource">
      <foaf:name>The Citebase Project</foaf:name>
      <foaf:page rdf:resource="http://www.citebase.org/">
      <foaf:mbox rdf:resource="mailto:tdb01r@ecs.soton.ac.uk"/>
    </dcterms:creator>
  </rdf:Description>
  <rdf:Description rdf:about="http://oreproxy.org/r?what=http://www.citebase.org/abstract?id%3dc">
    <ore:proxyFor rdf:resource="http://www.citebase.org/abstract?id=oai:arXiv.org:astro-ph/0601">
    <ore:proxyIn rdf:resource="http://arxiv.org/aggregation/astro-ph/0601007"/>
  </rdf:Description>
</xmlData>
</mdWrap>
</dmdSec>
<fileSec>
  <fileGrp>
    <file ID="d1e3">
      <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
        xlink:href="http://arxiv.org/rem/mets/astro-ph/0601007#SM-d1e3"/>
    </file>
    <file ID="d1e19">
      <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
        xlink:href="http://arxiv.org/aggregation/astro-ph/0601007"/>
    </file>
    <file ID="d1e57">
      <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI" xlink:href="info:arxiv/astro-ph/0601007"/>
    </file>
    <file ID="d1e59">
      <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"

```

```
        xlink:href="info:doi/10.1142/S0217732306019475"/>
</file>
<file ID="d1e64" MIMETYPE="application/rdf+xml">
  <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
    xlink:href="http://arxiv.org/rem/rdf/astro-ph/0601007"/>
</file>
<file ID="d1e68">
  <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
    xlink:href="http://arxiv.org/abs/astro-ph/0601007"/>
</file>
<file ID="d1e72">
  <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
    xlink:href="http://jp.arxiv.org/aggregation/astro-ph/0601007"/>
</file>
<file ID="d1e77">
  <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
    xlink:href="http://arxiv.org/aggregation/astro-ph/0601007v1"/>
</file>
<file ID="d1e79">
  <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
    xlink:href="http://arxiv.org/aggregation/astro-ph/0601007v2"/>
</file>
<file ID="d1e83">
  <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
    xlink:href="http://arxiv.org/aggregation/0807.1020"/>
</file>
<file ID="d1e85">
  <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
    xlink:href="http://arxiv.org/aggregation/0806.4327"/>
</file>
<file ID="d1e107" MIMETYPE="application/atom+xml">
  <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
    xlink:href="http://arxiv.org/rem/atom/astro-ph/0601007"/>
</file>
<file ID="d1e119" MIMETYPE="application/rdf+xml">
  <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
    xlink:href="http://creativecommons.org/licenses/by-nc/2.5"/>
</file>
<file ID="d1e161" MIMETYPE="text/html">
  <FLocat LOCTYPE="OTHER" OTHERLOCTYPE="URI"
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