

# Open Archives Initiative Object Reuse & Exchange

## Resource Map Discovery

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OAI-ORE Specification Roll-Out

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<http://www.cs.odu.edu/~mln/>

Discovery...

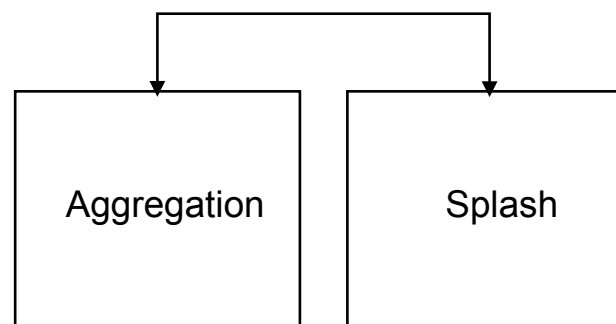


# Resource Map Discovery Outline

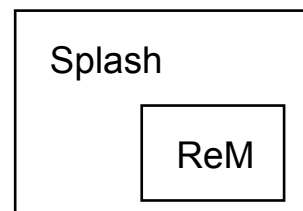
- Different Idioms for Design & Discovery
- Batch Discovery
  - OAI-PMH, SiteMaps, RSS/Atom
- Embedding Discovery Links
  - With HTML “link” element
  - With HTTP “Link” response header
- Open Issues
  - Indirect HTML/HTTP discovery links
  - Proxies from the ADM
    - HTML support for using “Proxy” (aka “cite in context”)
    - The nature of URI-P (resolvable vs. non-resolvable)

# Different Design Methods, Different Discovery Methods

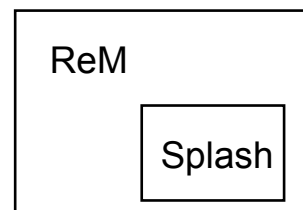
Syndication Format Idiom  
(URI-A  $\neq$  URI-S)



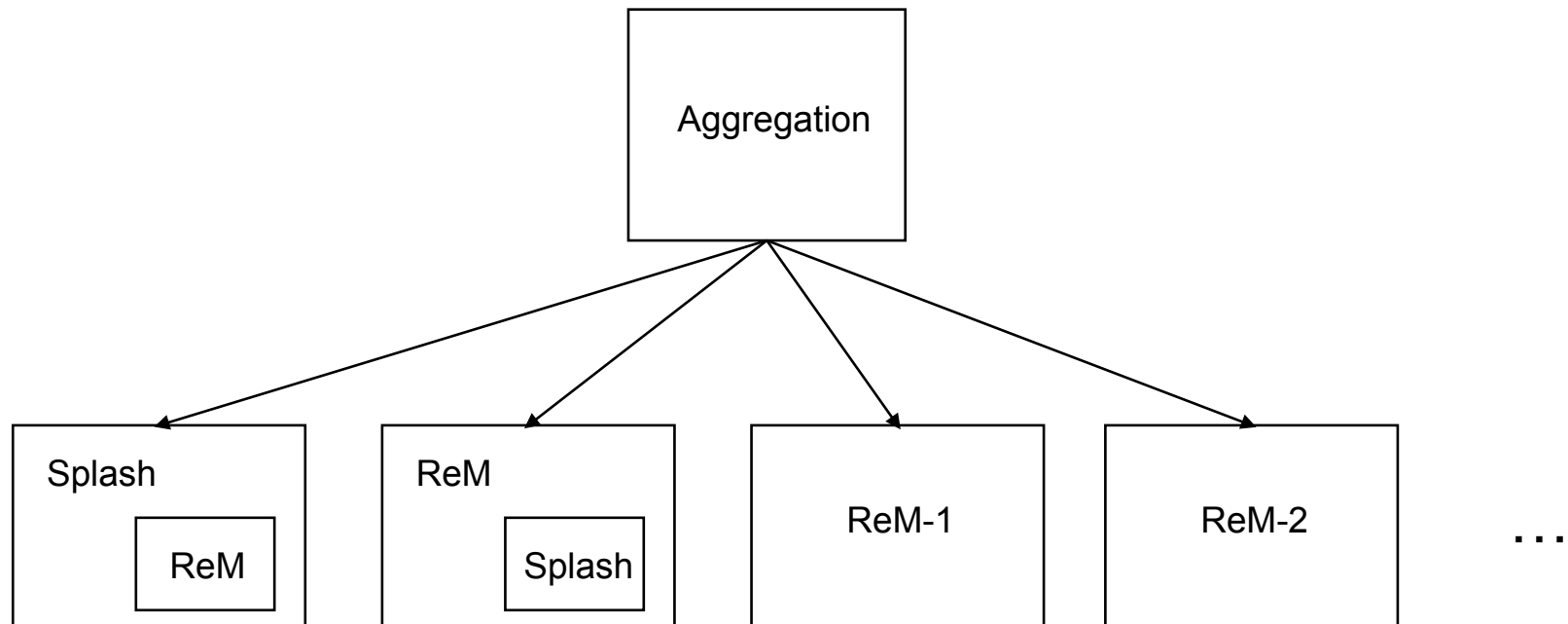
RDFa / Microformat Idiom  
(URI-R = URI-S)



XML Stylesheet Idiom  
(URI-R = URI-S)



# Putting it All Together...



Multiple values for URI-R and URI-S.  
The only unique value is URI-A.

# Batch Discovery

- ReMs & Aggregations are resources and we already know how to expose large batches of resources:
  - OAI-PMH
  - SiteMaps
  - RSS/Atom

# Batch :: OAI-PMH

[http://www.foo.edu/oai?verb=ListRecords&metadataPrefix=oai\\_rem\\_atom](http://www.foo.edu/oai?verb=ListRecords&metadataPrefix=oai_rem_atom)

```
<?xml version="1.0" encoding="UTF-8"?>
<OAI-PMH xmlns="http://www.openarchives.org/OAI/2.0/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/
    http://www.openarchives.org/OAI/2.0/OAI-PMH.xsd">
  <responseDate>2007-02-08T08:55:46Z</responseDate>
  <request verb="ListRecords" metadataPrefix="oai_rem_atom">
    http://foo.edu/oai2</request>
  <ListRecords>
    <record>
      <header>
        <identifier>oai:foo.edu:object1</identifier>
        <datestamp>2007-01-06</datestamp>
      </header>
      <metadata>
        <!-- Insert object1 ReM here -->
      </metadata>
    </record>
    . . .
  </ListRecords>
</OAI-PMH>
```

MUST NOT  
equal either ReM Atom /feed/id or  
/feed/link[@rel="self"]/@href

MUST be equal to ReM Atom /feed/updated

# OAI-PMH GetRecord Processing

[http://www.foo.edu/oai?verb=GetRecord&identifier=oai:foo.edu:object1&metadataPrefix=oai\\_rem\\_atom](http://www.foo.edu/oai?verb=GetRecord&identifier=oai:foo.edu:object1&metadataPrefix=oai_rem_atom)

[http://some.gateway.org/pmh2ore?=http://foo.edu/oai2?verb=GetRecord&metadataPefix=oai\\_rem\\_atom&identifier=oai:foo.edu:object1](http://some.gateway.org/pmh2ore?=http://foo.edu/oai2?verb=GetRecord&metadataPefix=oai_rem_atom&identifier=oai:foo.edu:object1)

```
<?xml version="1.0" encoding="UTF-8"?>
<OAI-PMH xmlns="http://www.openarchives.org/OAI/2.0/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/
    http://www.openarchives.org/OAI/2.0/OAI-PMH.xsd">
  <responseDate>2007-02-08T08:55:46Z</responseDate>
  <request verb="GetRecord" identifier="oai:foo.edu:object1"
    metadataPrefix="oai_rem_atom">http://foo.edu/oai2</request>
  <GetRecord>
    <record>
      <header>
        <identifier>oai:foo.edu:object1</identifier>
        <datestamp>2007-01-06</datestamp>
      </header>
      <metadata>
        <!-- Insert Object1 ReM here -->
      </metadata>
    </record>
  </GetRecord>
</OAI-PMH>
```

need a gateway to:

1. strip off OAI-PMH wrappers
2. return just what is inside <metadata>
3. reset the MIME type (e.g., from application/xml to application/atom+xml )



# Batch :: SiteMaps

http://www.foo.edu/sitemap-rem.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<urlset xmlns="http://www.sitemaps.org/schemas/sitemap/0.9">
  <url>
    <loc>http://www.foo.edu/objects/object1.atom</loc>
    <lastmod>2007-01-06</lastmod>
  </url>
  <url>
    <loc>http://www.foo.edu/objects/object2.atom</loc>
    <lastmod>2007-08-11</lastmod>
    <changefreq>weekly</changefreq>
  </url>
  <url>
    <loc>http://www.foo.edu/objects/object3.atom</loc>
    <lastmod>2007-03-15T18:30:02Z</lastmod>
    <priority>0.3</priority>
  </url>
  ...
</urlset>
```

MUST equal /feed/link[@rel="self"]/@href  
or /feed/id for corresponding ReM

MUST be equal to ReM Atom /feed/updated

remember SiteMap path limitation: http://www.foo.edu/a/b/sitemap-rem.xml can list  
http://www.foo.edu/a/b/bar2.atom but not http://www.foo.edu/bar1.atom

# Batch :: RSS

http://www.foo.edu/all-rems.rss

```
<?xml version="1.0"?>
<rss version="2.0">
  <channel>
    <title>ReMs at www.foo.edu</title>
    <link>http://www.foo.edu/</link>
    <description>All of the Resource Maps for resources at www.foo.edu</description>

    <item>
      <title>ReM for Object 1</title>
      <link>http://www.foo.org/objects/object1.atom</link>
      <description>ReM for Object 1</description>
      <pubDate>Sat, 06 Jan 2007 00:00:00 GMT</pubDate>
    </item>

    <item>
      <title>ReM for Object 2</title>
      <link>http://www.foo.org/objects/object2.atom</link>
      <description>ReM for Object 2</description>
      <pubDate>Sat, 11 Aug 2007 00:00:00 GMT</pubDate>
    </item>
  </channel>
</rss>
```

MUST equal ReM Atom /feed/id;  
or /feed/link[@rel="self"]/@href

MUST equal ReM Atom /feed/updated  
(after conversion from RFC-822 format to ISO 8601 format)

# Batch :: Atom

http://www.foo.edu/all-rems.atom

```
<feed xmlns="http://www.w3.org/2005/Atom">
  <title>ReMs at www.foo.edu</title>
  <link href="http://www.foo.edu/" />
  <link href="http://www.foo.edu/all-rems.atom" rel="self"/>
  <updated>2007-08-15T18:30:02Z</updated>
  <author>
    <name>John Doe</name>
    <email>johndoe@foo.edu</email>
  </author>
  <id>urn:uuid:60a76c80-d399-11d9-b91c-0003939e0af6</id>

  <entry>
    <title>ReM For Object1</title>
    <link href="http://www.foo.org/objects/object1.atom"/>
    <id>urn:uuid:1225c695-cfb8-4ebb-aaaa-80da344efa6a</id>
    <updated>2007-01-06T00:00:00Z</updated>
  </entry>

  <entry>
    <title>ReM For Object2</title>
    <link href="http://www.foo.org/objects/object2.atom"/>
    <id>urn:uuid:9a2cc699-ccba-9e8b-132e-91da394e9a5c</id>
    <updated>2007-08-11T00:00:00Z</updated>
  </entry>
</feed>
```

MUST equal ReM Atom  
/feed/link[@rel="self"]/@href  
or /feed/id

MUST NOT equal ReM Atom /feed/id;

MUST equal ReM Atom /feed/updated

# Embedding Discovery Links into Resources

- Starting with a resource, how to find the associated Aggregations(s)?
  - HTML `<link>`
  - HTTP Response Headers
  - HTTP `<A>` & `<IMG>`
  - ReM Transparency
- 4 levels to describe resources' knowledge of their Aggregations

# Embedding :: Knowledge Levels

- Full knowledge
  - the Aggregation(s) is linked to by all resources in the Aggregation.
- Indirect knowledge
  - all but one of the resources in the Aggregation link to a single, unique Aggregated Resource in the aggregation, which in turn links to the Aggregation(s).
  - functionally the same as full knowledge, but likely to be useful in actual deployment
- Limited knowledge
  - only a subset of the resources in the Aggregation (typically just a single resource) link to the Aggregation(s), and the remainder of the resources have no links at all.
- Zero knowledge
  - none of the resources in a Aggregation link to the Aggregation.

# HTML <link> :: Full Knowledge

```
<html>
<head>
<title>Hello World.</title>
<link href="http://example.net/hw.atom#aggregation"
      type="application/atom+xml" rel="resourcemap" >
</head>
<body>


</html>
```

# HTML <link> :: Indirect Knowledge

```
<html>
<head>
<title>Chapter Twelve.</title>
<link href="http://mybook.com/toc.html"
      type="text/html" rel="indirectresource" >
</head>
<body>
Welcome to chapter twelve...
</body>
</html>
```

Open Issue: In certain scenarios, indirect linking could be useful.

In other scenarios, it can lead to incorrect assertions:

T<sub>1</sub>: A-1 aggregates {AR-1, AR-2, AR-3}.

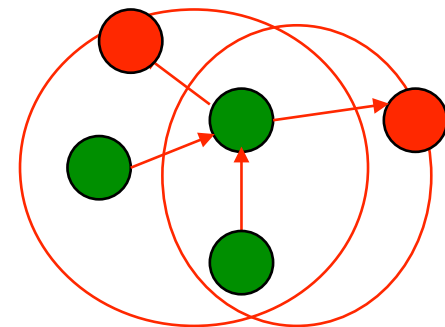
AR-1 directly links to A-1.

AR-2, AR-3 indirectly link through AR-1.

T<sub>2</sub>: A-2 aggregates {AR-1, AR-2}.

T<sub>3</sub>: AR-1 updates its direct links to include {A-1, A-2}

AR-2 is telling the truth, but AR-3 is not.



# Embedding :: HTTP Response

```
HEAD http://www.example.net/hello.jpeg HTTP/1.1
Host: www.example.net
Connection: close
```

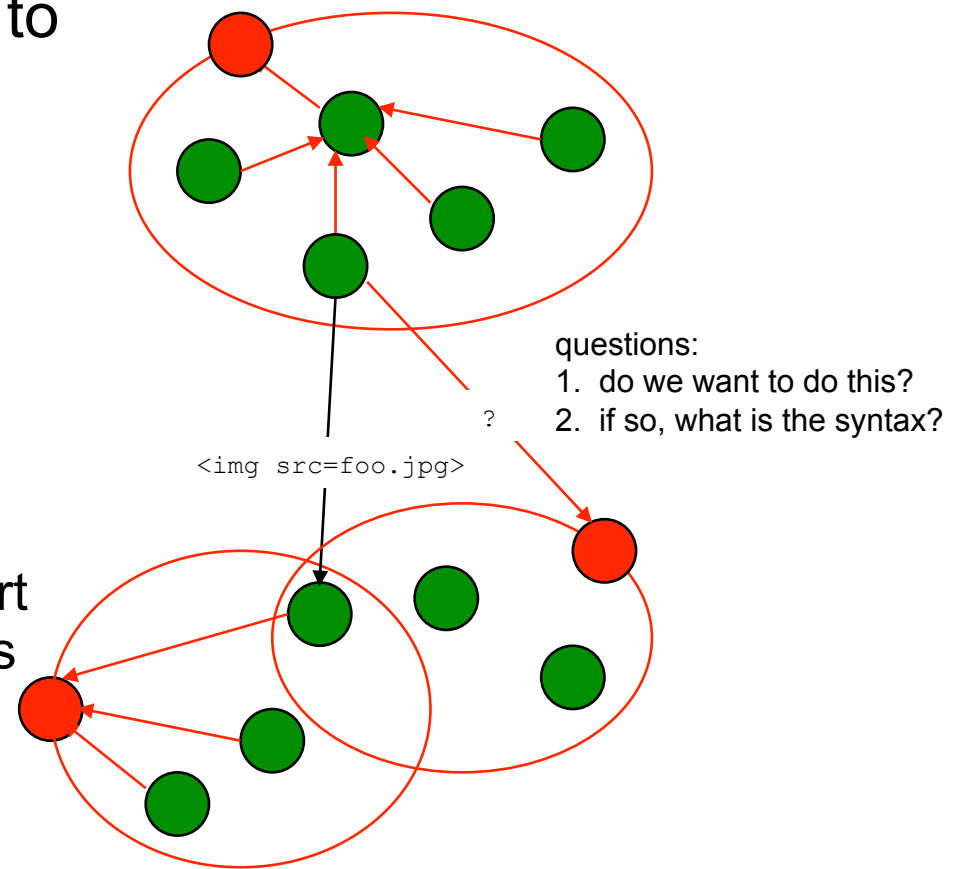
```
HTTP/1.1 200 OK
Date: Sat, 26 May 2007 22:43:10 GMT
Server: Apache/2.2.0
Last-Modified: Sat, 26 May 2007 19:32:04 GMT
ETag: "c3596-816-92123500"
Accept-Ranges: bytes
Content-Length: 2070
Link: <http://example.net/hw.atom>; type="application/atom+xml"; rel="resourcemap"
Content-Type: image/jpeg
Connection: close
```

Nottingham's IETF Draft establishing semantic equivalence  
between HTML `<link>` and HTTP `Link`:



# HTML `<link>` vs. `<A>` & `<IMG>`

- `link` is from “this” document to its 1 or more corresponding ReMs
  - AR-1 ore:isAggregatedBy A-1
- `A` & `IMG` capabilities are proposed to provide “hints” about the context of the disaggregated resources
  - problem: HTML does not support statements of the form “I got this from there”
  - example: “I got this JPEG from ReM1, the PDF from ReM2 and this quoted text section from ReM3.”



# HTML Option #1: `resourceMap` attribute

```
<html>
...
Here is a helpful reference for distinguishing
<a href="http://example.org/pics/f-t.pdf"
resourceMap="http://example.org/amphibians.atom">frogs vs. toads</a>.
<p>
Here is a frog

and here is a toad .
...
</html>
```

Pro: very simple, human readable

Con: invalid HTML

# HTML Option #2:

## <A> rel attribute

```
<html>
...
Here is a helpful reference for distinguishing
<a href="http://example.org/pics/f-t.pdf"
rel="resourcemap=http://example.org/amphibians.atom">frogs vs. toads</a>.
<p>
Here is a frog
<a rel="resourcemap=http://frogs.org/frogs.atom">

</a> and here is a toad
<a rel="resourcemap=http://toadsrule.org/toads.atom">

</a>.
...
</html>
```

Pro: Valid HTML

Con: Not uniform (<A> and <IMG> do not (yet) support the same elements)

# HTML Option #3: class attribute

```
<html>
...
Here is a helpful reference for distinguishing
<a href="http://example.org/pics/f-t.pdf"
class="resourcemap=http://example.org/amphibians.atom">frogs vs. toads</a>.
<p>
Here is a frog

and here is a toad .
...
</html>
```

Pro: very simple, human readable, valid HTML

Con: stretches, but does not break, "class"\*

\* <http://www.w3.org/TR/REC-html40/struct/global.html#edef-class>

The class attribute has several roles in HTML:

\* As a style sheet selector (when an author wishes to assign style information to a set of elements).

\* For general purpose processing by user agents.

# HTML Option #4: <span>/<div> elements

```
<html>
...
Here is a helpful reference for distinguishing
<span class="resourcemap=http://example.org/amphibians.atom">
<a href="http://example.org/pics/f-t.pdf" frogs vs. toads</a>.
</span>
<p>
Here is a frog
<span class="resourcemap=http://frogs.org/frogs.atom">

</span> and here is a toad
<span class="resourcemap=http://toadsrule.org/toads.atom">

</span>.
...
</html>
```

Pro: Valid HTML, Uniform Approach, Consistent with Microformats (COinS, unAPI, etc.), can cite blocks of text (URIs resolved prior to HTML generation)  
Con: The beginnings of a ReM Microformat... allow incomplete ReMs?

# HTML Option #5: *Really* use URI-P

```
<html>
...
Here is a helpful reference for distinguishing
<!-- Option 1: concatenate (URI-A,URI-AR); not necessarily a "real" registry (redirect could be
scripted). Shown w/o necessary encoding. -->
<a
href="http://purl.org/ore/http://example.org/amphibians.atom/*/http://example.org/pics/f-t.pdf">
frogs vs. toads</a>.
<p>
Here is a frog
<!-- Option 2: IA-like approach. Number is a persistent offset into a "real" registry
(e.g., 12th Aggregation to aggregate this AR). 303 Redirect to URI-AR, put URI-A
in an ore:isAggregatedBy HTTP response header. No encoding needed. -->

and here is a toad
<!-- Option 3: TinyURL-like approach. Similar to above, but w/ compressed, semantic-free URI. -->
.
...
</html>
```

Pro: No HTML tricks.

Con: URI tricks, "some assembly required".

# Embedding :: Transparency

- There is precedent for exposing URIs, HTML, JavaScript, etc. as opaque strings for users to paste into other applications
- This is not the same as creating a hypertext link to the scripts...

# Embedding :: Transparency

The screenshot shows a YouTube video player for the song "You Were Always The One" by The Crips. The video is currently playing at 01:40 out of 02:47. The video player includes standard controls like play/pause, volume, and a progress bar. Below the player are options to share, favorite, add to playlists, and flag. The video has a 4.5-star rating from 103 ratings and 36,551 views. The channel is "wichtarecordings", which has 47 videos and was joined 1 year ago. The "About This Video" section provides details about the music video and a link to the artist's website. A red box highlights the "Embed" section, which contains the following code: `<object width="425" height="355"><param name="movie" value="h`. Below this, there is a "More From: wichtarecordings" section with a list of other videos, including "Bloc Party - Flux", "Los Campesinos! - International Tweekore Underground", "Simian Mobile Disco - Hustler (2007)", and "Those Dancing Days - Those Dancing Days".

YouTube - The Crips - You Were Always The One

Hi, [phonedudemln!](#) | [Account](#) | [History](#) | [Help](#) | [Log Out](#) | [Site](#)

**You Tube**  
Broadcast Yourself™

Home Videos Channels Community

Videos Search [settings](#) Upload

### The Crips - You Were Always The One

From: [wichtarecordings](#)  
Joined: 1 year ago  
Videos: 47 [Subscribe](#)

**About This Video**  
Music video The Crips' single "You Were Always The One".  
[www.wichita-recordings.com](#) ([more](#))  
Added: August 28, 2006

Embed [customize](#)  
`<object width="425" height="355"><param name="movie" value="h`

**More From: wichtarecordings**

- [Bloc Party - Flux](#)  
03:37 From: [wichtarecordings](#)  
Views: 412,896
- [Los Campesinos! - International Tweekore Underground](#)  
03:26 From: [wichtarecordings](#)  
Views: 46,112
- [Simian Mobile Disco - Hustler \(2007\)](#)  
03:52 From: [wichtarecordings](#)  
Views: 137,191
- [Those Dancing Days - Those Dancing Days](#)  
03:21 From: [wichtarecordings](#)  
Views: 93,207

Rate: ★★★★★  
103 ratings

Views: 36,551

Comments: 46 Favorited: 281 times Honors: 0 Links: 5

Find:  Next Previous Highlight all

<http://www.youtube.com/watch?v=0PKDJrIMJFs#>



# Embedding :: Transparency

rmccartney/1955 Nomad - Photobucket - Video and Image Hosting





http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad

photobucket help | login





home | join now | find stuff | images | videos | web

Album: **rmccartney > 1955 Nomad** (All, 30 images) links grid

1 2 next | view all

			
<b>Email &amp; IM</b> <a href="http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_001.jpg">http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_001.jpg</a>	<b>Email &amp; IM</b> <a href="http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_002.jpg">http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_002.jpg</a>	<b>Email &amp; IM</b> <a href="http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_003.jpg">http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_003.jpg</a>	<b>Email &amp; IM</b> <a href="http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_004.jpg">http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_004.jpg</a>
<b>Direct Link</b> <a href="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_001.jpg">http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_001.jpg</a>	<b>Direct Link</b> <a href="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_002.jpg">http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_002.jpg</a>	<b>Direct Link</b> <a href="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_003.jpg">http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_003.jpg</a>	<b>Direct Link</b> <a href="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_004.jpg">http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_004.jpg</a>
<b>HTML Code</b> <code>&lt;img src="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_001.jpg" alt="Red 1955 Ford Nomad on a tow truck" data-bbox="211 401 318 506"/&gt;</code>	<b>HTML Code</b> <code>&lt;img src="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_002.jpg" alt="Red 1955 Ford Nomad on a tow truck" data-bbox="341 401 448 506"/&gt;</code>	<b>HTML Code</b> <code>&lt;img src="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_003.jpg" alt="Red 1955 Ford Nomad on a tow truck" data-bbox="473 401 580 506"/&gt;</code>	<b>HTML Code</b> <code>&lt;img src="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_004.jpg" alt="Red 1955 Ford Nomad on a tow truck" data-bbox="605 401 712 506"/&gt;</code>
<b>IMG Code</b> <code>[IMG]http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_001.jpg</code>	<b>IMG Code</b> <code>[IMG]http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_002.jpg</code>	<b>IMG Code</b> <code>[IMG]http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_003.jpg</code>	<b>IMG Code</b> <code>[IMG]http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_004.jpg</code>

			
<b>Email &amp; IM</b> <a href="http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_005.jpg">http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_005.jpg</a>	<b>Email &amp; IM</b> <a href="http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_006.jpg">http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_006.jpg</a>	<b>Email &amp; IM</b> <a href="http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_007.jpg">http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_007.jpg</a>	<b>Email &amp; IM</b> <a href="http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_008.jpg">http://s5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_008.jpg</a>
<b>Direct Link</b> <a href="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_005.jpg">http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_005.jpg</a>	<b>Direct Link</b> <a href="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_006.jpg">http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_006.jpg</a>	<b>Direct Link</b> <a href="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_007.jpg">http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_007.jpg</a>	<b>Direct Link</b> <a href="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_008.jpg">http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_008.jpg</a>
<b>HTML Code</b> <code>&lt;img src="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_005.jpg" alt="Close-up of a headlight" data-bbox="211 648 318 753"/&gt;</code>	<b>HTML Code</b> <code>&lt;img src="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_006.jpg" alt="Close-up of a headlight" data-bbox="341 648 448 753"/&gt;</code>	<b>HTML Code</b> <code>&lt;img src="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_007.jpg" alt="Red 1955 Ford Nomad" data-bbox="473 648 580 753"/&gt;</code>	<b>HTML Code</b> <code>&lt;img src="http://i5.photobucket.com/albums/y167/rmccartney/1955%20Nomad/1955%20Nomad_008.jpg" alt="Red 1955 Ford Nomad" data-bbox="605 648 712 753"/&gt;</code>

Find:  Next Previous Highlight all

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# Embedding :: Transparency

The screenshot shows a web browser window displaying the Hemmings Motor News website. The address bar shows the URL: <http://www.hemmings.com/classifieds/carsforsale/ford/fairlane/?y>. The website has a navigation menu with items like Home, Classifieds, My Hemmings, Publications, Research, Store, Directory, Forums, Downloads, and About Us. A search bar is located at the top left. The main content area is titled "Classifieds > Cars For Sale > Ford > Fairlane" and includes a sub-header "(VIEWING YEAR 1966)". A sidebar on the left lists "Browse Ads" by year from 1955 to 1969. The main listing area shows two cars for sale:

- 1966 Ford Fairlane**: A red convertible, priced at **\$47,000**. Description: "This is a beautiful Fairlane 500 GT convertible in excellent condition. This car is straight and solid with excellent red exterior that was clearly a ... [more...](#)"
- 1966 Ford Fairlane**: A red sedan, priced at **\$32,000**. Description: "EVERY FORD ENTHUSIAST IN THE COUNTRY SHOULD BE ON OUR WEBSITE, VIEWING THE LARGEST THOUROUGHBRED INVESTMENT QUALITY FORD INVENTORY IN THE HISTORY OF O... [more...](#)"

Below the listings, there is a box titled "Ford Fairlane Cars For Sale Classified Feed" which contains an embedding code. This box is highlighted with a red border. The code is as follows:

```
Show these listings on your website
Display the most recently added 1966 Ford Fairlane classifieds on your website.
Simply copy the code below, and paste it onto the page where you'd like the listings to show:
Ford Fairlane listings from <a href="http://www.hemmings.com/classifieds/carsforsale/ford/fairlane/?y" type="text/javascript" src="http://www.hemmings.com/classifieds/carsforsale/ford/fairlane/?y">
</a>
<input type="button" value="What's This?"/>
```

On the right side of the page, there is a vertical advertisement for "Hemmings Motor Collectible Value" with the text "Here's value you get that'll fit your pocket" and "A quick & reference carry where you go." Below this, it says "Lists values of luxury, exotic cars & trucks 2007. Older used trucks 1946-1969. 274 pages, \$9.95" and "ONLY \$9.95 (or by subscription) updated every 6 months" with a "CLICK" button.

# Embedding :: Transparency

The screenshot shows a web browser window displaying an arXiv.org article. The browser's address bar shows the URL `http://www.openarchives.org/ore/0.2/discovery-examples/arxiv.html`. The page title is "[astro-ph/0601007] Parametrization of K-essence and Its Kinetic Term". The arXiv.org navigation bar is visible, showing the path "arXiv.org > astro-ph > arXiv:astro-ph/0601007". The article title is "Parametrization of K-essence and Its Kinetic Term" by Hui Li, Zong-Kuan Guo, and Yuan-Zhong Zhang. The abstract states: "We construct the non-canonical kinetic term of a k-essence field directly from the effective equation of state function  $w_k(z)$ , 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." The page includes a "Download:" section with links for PostScript, PDF, and Other formats. A "References & Citations" section lists links to SLAC-SPIRES HEP, NASA ADS, and CiteBase. A "Submission history" section shows the article was submitted on 31 Dec 2005 and revised on 18 Jan 2006. A red box highlights a "Resource Map" section with the URL `http://arxiv.org/rem/astro-ph/0601007`. The browser's search bar and navigation buttons are visible at the bottom.

[astro-ph/0601007] Parametrization of K-essence and Its Kinetic Term

http://www.openarchives.org/ore/0.2/discovery-examples/arxiv.html

arXiv.org > astro-ph > arXiv:astro-ph/0601007

Astrophysics

## Parametrization of K-essence and Its Kinetic Term

Hui Li, Zong-Kuan Guo, Yuan-Zhong Zhang

(Submitted on 31 Dec 2005 (v1), last revised 18 Jan 2006 (this version, v2))

We construct the non-canonical kinetic term of a k-essence field directly from the effective equation of state function  $w_k(z)$ , 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.

Comments: 8 pages, 1 figure; accepted by Mod. Phys. Lett. A; minor changes to references  
Subjects: **Astrophysics (astro-ph)**  
Journal reference: Mod.Phys.Lett. A21 (2006) 1683-1690  
DOI: [10.1142/S0217732306019475](https://doi.org/10.1142/S0217732306019475)  
Cite as: [arXiv:astro-ph/0601007v2](https://arxiv.org/abs/astro-ph/0601007v2)

### Submission history

From: Hui Li [[view email](#)]  
[v1] Sat, 31 Dec 2005 04:01:23 GMT (20kb)  
[v2] Wed, 18 Jan 2006 06:16:15 GMT (20kb)

Link back to: [arXiv](#), [form interface](#), [contact](#).

Resource Map for arXiv:astro-ph/0601007 <http://arxiv.org/rem/astro-ph/0601007>  
(What's a Resource Map?)

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# Discovery is a Dirty Job



- Frequently a trade-off between “cleanliness” and “utility”
- Multiple discovery methods, possibly more evolving over time
- Each method has caveats and multiple opportunities to get it wrong
- At least 3 open issues, perhaps more that we have yet to uncover