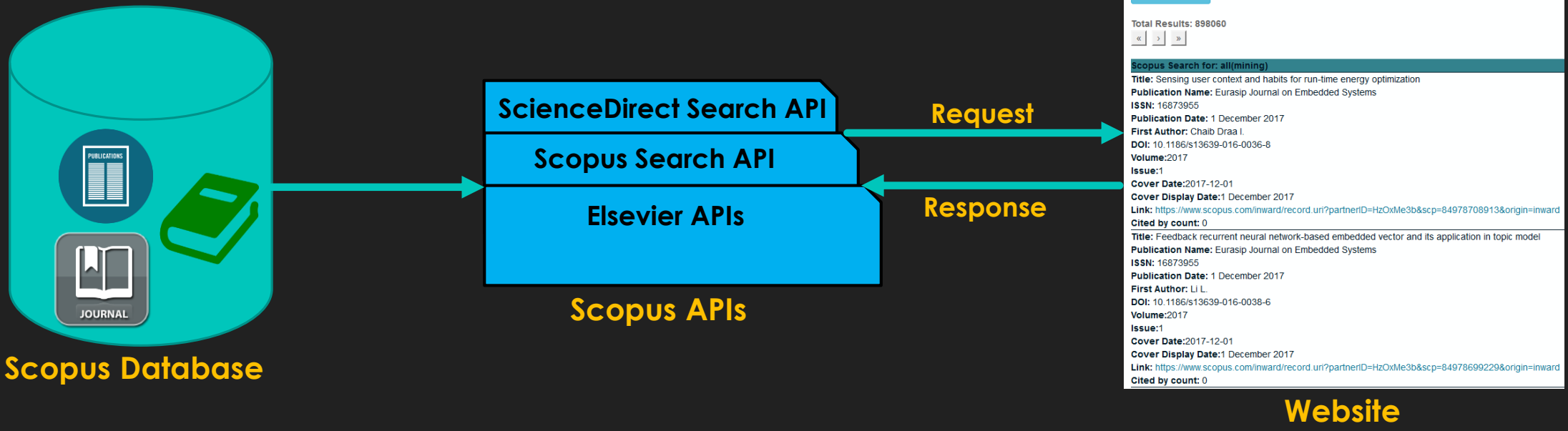
Scopus APIs Guideline

What are the Scopus APIs?

- Elsevier's API program allows you to integrate content and data from Scopus into your own website and applications.
- Scopus APIs expose curated abstracts and citation data from all scholarly journals, books and conferences indexed by Scopus.



Overview of Scopus APIs

- Federated Search
- Scopus IR/CRIS/VIVO
- ScienceDirect IR/CRIS/VIVO
- Cited by in Scopus
- Engineering Village Search
- Authentication
- Search Request
- Retrieval Request
- Facets
- Engineering Village Retrieval

Search Request

- A Search Request method enables a RESTful API.
- You can search content such as journals, abstracts, author information, or objects (such as graphics).
- Searching via the RESTful APIs is broken down across the following categories
  - Affiliation Search
  - Author Search
  - Object Search
  - ScienceDirect Search
  - Scopus Search

Source: http://dev.elsevier.com/tecdoc_search_request.html

Views

- A view is a kind of filter on data returned from the APIs.
- Some views return more, some less, and a view does not have to be explicitly defined.

Affiliation Search Views

Field	Description	STANDARD
link ref=self	Content Affiliation Retrieval API URI for the affiliation details	X
link ref=scopus-affiliation	Scopus Affiliation Details page URL	X
link ref=search	Content Scopus Search API URL for the abstract results list **http://api.elsevier.com/content/search /scopus?query=afid({afid})**	X
prism:url	Content Affiliation Retrieval API URI for the affiliation details	X
dc:identifier	Affiliation ID	X
parent-affiliation-id	Parent Affiliation ID	X
affiliation-name	Affiliation name	X
name-variant	Name variants	X
city	City	X
country	Country	X
document-count	Number of documents	X

SCOPUS Search Views

Field	Description	STANDARD	COMPLETE
link ref=self	Content Abstract Retrieval API URI	X	X
link ref=scopus	Scopus abstract detail page URL	X	X
link ref=scopus-citedby	Scopus Cited By Results URL	X	X
prism:url	Content Abstract Retrieval API URI	X	X
dc:identifier	Scopus ID	X	X
eid	Electronic ID	X	X
dc:title	Article Title	X	X
prism:aggregationType	Document Type, using label	X	X
citedby-count	Cited-by Count	X	X
prism:publicationName	Source Title	X	X
prism:isbn	Source Identifier	X	X
prism:issn	Source Identifier	X	X
prism:volume	Volume	X	X
prism:issueIdentifier	Issue	X	X
prism:pageRange	Page	X	X
prism:coverDate	Publication Date (YYYY-MM-DD)	X	X
prism:coverDisplayDate	Publication Date (original text)	X	X

Author Search Views

Field	Field	STANDARD
link ref=self	Content Author Retrieval API URI	X
link ref=scopus-author	Scopus author details URL, not PREVIEW-enabled	X
link ref=scopus-citedby	Scopus Author Cited By Results URL	X
link ref=search	Content Scopus Search API URL for the abstracts associated with the author (i.e., a Scopus document search by author ID) **http://api.elsevier.com/content /search /scopus?query=authid({authid})**	X

Affiliation Search API

- Search an institution's profile in Scopus (organization's city, or the organization's country)
- Resource
  - http://api.elsevier.com/content/search/affiliation
- Method
  - GET
- Response formats
  - application/json
  - application/xml
  - application/atom+xml

Affiliation Search Request

- Query parameters
  - query This represents the Boolean search to be executed against the Affiliation cluster.
  - view This alias represents the list of elements that will be returned in the response.
    - Default: STANDARD
    - Options: STANDARD
- List of search fields
  - AFFIL and AF-ID
- Example
  - http://api.elsevier.com/content/search/affiliation?query=AFFIL(thailand)

Affiliation Search Views

Affiliation Search Views

Field	Description	STANDARD
link ref=self	Content Affiliation Retrieval API URI for the affiliation details	X
link ref=scopus-affiliation	Scopus Affiliation Details page URL	X
link ref=search	Content Scopus Search API URL for the abstract results list **http://api.elsevier.com/content/search/scopus?query=afid({afid})**	X
prism:url	Content Affiliation Retrieval API URI for the affiliation details	X
dc:identifier	Affiliation ID	X
parent-affiliation-id	Parent Affiliation ID	X
affiliation-name	Affiliation name	X
name-variant	Name variants	X
city	City	X
country	Country	X
document-count	Number of documents	X

Affiliation Search Example

Request URL:
http://api.elsevier.com/content/search/affiliation?apiKey=851099999b3d4b268eedee76084d2d02&query=AFFIL(thailand)

This XML file does not appear to have any style information associated with it. The document tree is shown below.


```
<search-results xmlns="http://www.w3.org/2005/Atom" xmlns:atom="http://www.w3.org/2005/Atom" xmlns:prism="http://prismstandard.org/namespaces/basic/2.0/"
 xmlns:opensearch="http://a9.com/-/spec/opensearch/1.1/" xmlns:dc="http://purl.org/dc/elements/1.1/">
  <opensearch:totalResults>9207</opensearch:totalResults>
  <opensearch:startIndex>0</opensearch:startIndex>
  <opensearch:itemsPerPage>25</opensearch:itemsPerPage>
  <opensearch:Query role="request" searchTerms="" startPage="0"/>
  <link ref="self" href="http://api.elsevier.com:80/content/search/affiliation?start=0&count=25&query=AFFIL%28thailand%29&apiKey=851099999b3d4b268eedee76084d2d02" type="application/xml"/>
  <link ref="first" href="http://api.elsevier.com:80/content/search/affiliation?start=0&count=25&query=AFFIL%28thailand%29&apiKey=851099999b3d4b268eedee76084d2d02" type="application/xml"/>
  <link ref="next" href="http://api.elsevier.com:80/content/search/affiliation?start=25&count=25&query=AFFIL%28thailand%29&apiKey=851099999b3d4b268eedee76084d2d02" type="application/xml"/>
  <link ref="last" href="http://api.elsevier.com:80/content/search/affiliation?start=4975&count=25&query=AFFIL%28thailand%29&apiKey=851099999b3d4b268eedee76084d2d02" type="application/xml"/>
 ▼<entry>
    <link ref="self" href="http://api.elsevier.com/content/affiliation/affiliation_id/60012718"/>
    <link ref="search" href="http://api.elsevier.com/content/search/scopus?query=af-id%2860012718%29"/>
    <link ref="scopus-affiliation" href="https://www.scopus.com/affil/profile.uri?afid=60012718&partnerID=HzOxMe3b&origin=inward"/>
   ▼<prism:url>
      http://api.elsevier.com/content/affiliation/affiliation_id/60012718
    </prism:url>
    <dc:identifier>AFFILIATION_ID:60012718</dc:identifier>
    <eid>10-s2.0-60012718</eid>
    <affiliation-name>Mahidol University</affiliation-name>
    <name-variant>Mahidol University</name-variant>
    <document-count>27564</document-count>
    <city>Nakon Pathom</city>
    <country>Thailand</country>
    <parent-affiliation-id>0</parent-affiliation-id>
  </entry>
 ▼<entry>
    <link ref="self" href="http://api.elsevier.com/content/affiliation/affiliation_id/60028190"/>
    <link ref="search" href="http://api.elsevier.com/content/search/scopus?query=af-id%2860028190%29"/>
    <link ref="scopus-affiliation" href="https://www.scopus.com/affil/profile.uri?afid=60028190&partnerID=HzOxMe3b&origin=inward"/>
   ▼<prism:url>
      http://api.elsevier.com/content/affiliation/affiliation_id/60028190
    </prism:url>
    <dc:identifier>AFFILIATION_ID:60028190</dc:identifier>
    <eid>10-s2.0-60028190</eid>
    <affiliation-name>Chulalongkorn University</affiliation-name>
    <name-variant>Chulalongkorn University</name-variant>
    <document-count>24028</document-count>
    <city>Bangkok</city>
    <country>Thailand</country>
    <parent-affiliation-id>0</parent-affiliation-id>
  </entry>
```

Author Search API

- Searching on Scopus Author profiles that helps you find authors associated with documents written by a specific person.
- Resource
  - http://api.elsevier.com/content/search/author
  - GET
- Response formats
  - application/json
  - application/xml
  - application/atom+xml

Author Search Request

- Query parameters
  - query This represents the Boolean search to be executed against the Author cluster.
  - co-author This is an alternative to the query parameter where an author identifier can be submitted and a list of all associated co-authors will be returned.
  - sort Represents the sort field name and order.
  - view This alias represents the list of elements that will be returned in the response.
    - Default: STANDARD
    - Options: STANDARD
- List of search fields
  - AFFIL, AF-ID, AU-ID, AUTHFIRST(author first initial or first name), AUTHLASTNAME and ORCID
- Example
  - http://api.elsevier.com/content/search/author?query=AUTHLASTNAME(kongthon)

Author Search Views

Field	Field	STANDARD
link ref=self	Content Author Retrieval API URI	X
link ref=scopus-author	Scopus author details URL, not PREVIEW-enabled	X
link ref=scopus-citedby	Scopus Author Cited By Results URL	X
link ref=search	Content Scopus Search API URL for the abstracts associated with the author (i.e., a Scopus document search by author ID) **http://api.elsevier.com/content/search/scopus?query=authid({authid})**	X
prism:url	Content Author Retrieval API URI	X
dc:identifier	Author ID	X
eid	Electronic ID	X
orcid	Author Identifier	X
document-count	Number of documents	X
subject-area	Subject Areas (Maximum of 3)	X
preferred-name **surname**	Preferred Author last name	X
preferred-name **given-name**	Preferred Author first name	X
preferred-name **initials**	Author initials	X
name-variant	Author name variants (Maximum of 3)	X
affiliation-current **affiliation-name**	Current affiliation's name	X
affiliation-current **affiliation-city**	City	X
affiliation-current **affiliation-country**	Country	X
affiliation-current **affiliation-id**	Affiliation ID	X
affiliation-current **affiliation-url**	Content Affiliation Retrieval API URI	X

Author Search Example

Request URL:
http://api.elsevier.com/content/search/author?apiKey=851099999b3d4b268eedee76084d2d02&query=AUTHLASTNAME(kongthon)

This XML file does not appear to have any style information associated with it. The document tree is shown below.


```
▼<search-results xmlns="http://www.w3.org/2005/Atom" xmlns:atom="http://www.w3.org/2005/Atom" xmlns:prism="http://prismstandard.org/namespaces/basic/2.0/"
 xmlns:opensearch="http://a9.com/-/spec/opensearch/1.1/" xmlns:dc="http://purl.org/dc/elements/1.1/">
   <opensearch:totalResults>6</opensearch:totalResults>
   <opensearch:startIndex>0</opensearch:startIndex>
   <opensearch:itemsPerPage>6</opensearch:itemsPerPage>
   <opensearch:Query role="request" searchTerms="AUTHLASTNAME(kongthon)" startPage="0"/>
   <link ref="self" href="http://api.elsevier.com:80/content/search/author?start=0&count=25&query=AUTHLASTNAME%28kongthon%29&apiKey=851099999b3d4b268eedee76084d2d02" type="applicat
   <link ref="first" href="http://api.elsevier.com:80/content/search/author?start=0&count=25&query=AUTHLASTNAME%28kongthon%29&apiKey=851099999b3d4b268eedee76084d2d02" type="applica
 ▼<entry>
    <link ref="self" href="http://api.elsevier.com/content/author/author_id/23397440700"/>
    <link ref="search" href="http://api.elsevier.com/content/search/author?query=au-id%2823397440700%29"/>
    <link ref="scopus-citedby" href="https://www.scopus.com/author/citedby.uri?partnerID=HzOxMe3b&citedAuthorId=23397440700&origin=inward"/>
    <link ref="scopus-author" href="https://www.scopus.com/authid/detail.uri?partnerID=HzOxMe3b&authorId=23397440700&origin=inward"/>
   ▼<prism:url>
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    </prism:url>
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    <eid>9-s2.0-23397440700</eid>
   ▼<preferred-name>
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      <given-name>Alisa</given-name>
      <initials>A.</initials>
    </preferred-name>
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    <subject-area abbrev="DECI" frequency="6">Decision Sciences (all)</subject-area>
    <subject-area abbrev="COMP" frequency="17">Computer Science (all)</subject-area>
    <subject-area abbrev="ENGI" frequency="4">Engineering (all)</subject-area>
   ▼<affiliation-current>
     ▼<affiliation-url>
        http://api.elsevier.com/content/affiliation/affiliation_id/60011525
      </affiliation-url>
      <affiliation-id>60011525</affiliation-id>
     ▼<affiliation-name>
        Thailand National Electronics and Computer Technology Center
      </affiliation-name>
      <affiliation-city/>
      <affiliation-country>Thailand</affiliation-country>
    </affiliation-current>
  </entry>
```

Problem: Author Identification in Scopus

Many authors have similar names

Dr. Lee **Dr. Lee** **Dr. Lee**

- The same author could appear in one document.
- Authors publish under name variation.

Dr. Lee
Dr. Leee (name spelling)
Dr. J. Lee
Dr. James Lee

Solution: Author Identification in Scopus

Dr. Lee
Dr. J. Lee
Dr. James Lee

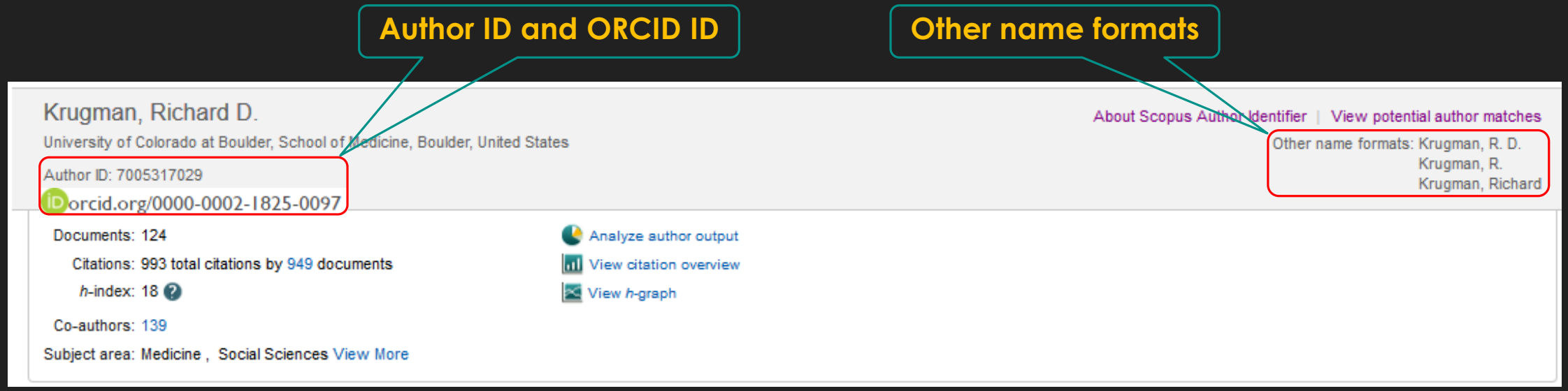
Author ID and ORCID

Dr. James Lee

Author ID: 46533489
ORCID ID: orcid.org/0000-0002-1825-0097

- Scopus Author Identifier distinguishes between these names by assigning each author in Scopus a unique number and grouping together all of the documents written by that author.
- Scopus Author Identifier uses an algorithm that matches author names based on their affiliation, address, subject area, source title, dates of publication citations, and co-authors.

Author Identification in Scopus



Scopus Search API

- Search Scopus content
- Resource
  - http://api.elsevier.com/content/search/scopus
- Method
  - GET
- Response formats
  - application/json
  - application/xml
  - application/atom+xml

Scopus Search Request

- Query parameters
  - query This represents the Boolean search to be executed against the SCOPUS cluster.
  - date Represents the date range associated with the search, with the lowest granularity being year.
  - sort Represents the sort field name and order.
  - view This alias represents the list of elements that will be returned in the response.
    - Default: STANDARD
    - Options: STANDARD, COMPLETE
- List of search fields
  - All, AFFIL,AFFILCITY, AFFILCOUNTRY, AFFILORG, AUTH, AUTHLASTNAME, AUTHFIRST, FIRSTAUTH, PUBYEAR, TITLE, ABS, KEY and more.

Scopus Search Request (cont'd)

- Matching Modes
  - Boolean operators You can use Boolean operators (AND, OR, AND NOT) in your search.
  - Proximity operators You can search to look for words that are within a specified distance of each other in a document.
  - Phrases You can search for an exact phrases.
  - Wildcards Use wildcard characters to search for variations of a word.
  - Field restriction You can search for a term in a specific field by entering the field name in your Advanced search
- Example
  - http://api.elsevier.com/content/search/scopus?query=TITLE(mining)

Scopus Search Views

Field	Description	STANDARD	COMPLETE
link ref=self	Content Abstract Retrieval API URI	X	X
link ref=scopus	Scopus abstract detail page URL	X	X
link ref=scopus-citedby	Scopus Cited By Results URL	X	X
prism:url	Content Abstract Retrieval API URI	X	X
dc:identifier	Scopus ID	X	X
eid	Electronic ID	X	X
dc:title	Article Title	X	X
prism:aggregationType	Document Type, using label	X	X
citedby-count	Cited-by Count	X	X
prism:publicationName	Source Title	X	X
prism:isbn	Source Identifier	X	X
prism:issn	Source Identifier	X	X
prism:volume	Volume	X	X
prism:issueIdentifier	Issue	X	X
prism:pageRange	Page	X	X
prism:coverDate	Publication Date (YYYY-MM-DD)	X	X
prism:coverDisplayDate	Publication Date (original text)	X	X
prism:doi	Document Object Identifier	X	X
pii	Publication Item Identifier	X	X
pubmed-id	MEDLINE Identifier	X	X
orcid	ORCID	X	X
dc:creator	First Author (auth first entry)	X	X
affiliation **affilname**	Affiliation name	X	X
affiliation **affiliation-city**	Affiliation city	X	X
affiliation **affiliation-country**	Affiliation country	X	X
affiliation **afid**	Affiliation ID		X
affiliation **affiliation-url**	Content Affiliation Retrieval API URI referencing the affiliation profile		X
affiliation **name-variant**	Alternate Affiliation name		X
author **author-url** **authid** **orcid** **authname** **given-name** **surname** **initials** **afid**	Complete Author list (includes author ID) The author-url contains the Content Author Retrieval API URI referencing the author profile		X
dc:description	Abstract		X
authkeywords	Author Keywords		X
article-number	Article Number		X
fund-acr	Funding Agency Acronym		X
fund-no	Funding Agency Identification		X
fund-sponsor	Funding Agency Name		X

Scopus Search Example

Request URL:
http://api.elsevier.com/content/search/scopus?apiKey=apikey&query=TITLE(mining)&view=COMPLETE

This XML file does not appear to have any style information associated with it. The document tree is shown below.


```
<search-results xmlns="http://www.w3.org/2005/Atom" xmlns:cto="http://www.elsevier.com/xml/cto/dtd" xmlns:atom="http://www.w3.org/2005/Atom"
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  <opensearch:totalResults>77475</opensearch:totalResults>
  <opensearch:startIndex>0</opensearch:startIndex>
  <opensearch:itemsPerPage>25</opensearch:itemsPerPage>
  <opensearch:Query role="request" searchTerms="TITLE(mining)" startPage="0"/>
  <link ref="self" href="http://api.elsevier.com:80/content/search/scopus?start=0&count=25&query=TITLE%28mining%29&apiKey=851099999b3d4b268eedee76084d2d02&view=COMPLETE" type="applicat
  <link ref="first" href="http://api.elsevier.com:80/content/search/scopus?start=0&count=25&query=TITLE%28mining%29&apiKey=851099999b3d4b268eedee76084d2d02&view=COMPLETE" type="applica
  <link ref="next" href="http://api.elsevier.com:80/content/search/scopus?start=25&count=25&query=TITLE%28mining%29&apiKey=851099999b3d4b268eedee76084d2d02&view=COMPLETE" type="applica
  <link ref="last" href="http://api.elsevier.com:80/content/search/scopus?start=4975&count=25&query=TITLE%28mining%29&apiKey=851099999b3d4b268eedee76084d2d02&view=COMPLETE"
  type="application/xml"/>
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    <link ref="author-affiliation" href="http://api.elsevier.com/content/abstract/scopus_id/84987950730?field=author,affiliation"/>
    <link ref="scopus" href="https://www.scopus.com/inward/record.uri?partnerID=HzOxMe3b&scp=84987950730&origin=inward"/>
    <link ref="scopus-citedby" href="https://www.scopus.com/inward/citedby.uri?partnerID=HzOxMe3b&scp=84987950730&origin=inward"/>
    <link ref="full-text" href="http://api.elsevier.com/content/article/eid/1-s2.0-S0261517716301698"/>
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    </prism:url>
    <dc:identifier>SCOPUS_ID:84987950730</dc:identifier>
    <eid>2-s2.0-84987950730</eid>
    <dc:title>
      Mining meaning from online ratings and reviews: Tourist satisfaction analysis using latent dirichlet allocation
    </dc:title>
    <dc:creator>Guo Y.</dc:creator>
    <prism:publicationName>Tourism Management</prism:publicationName>
    <prism:issn>02615177</prism:issn>
    <prism:volume>59</prism:volume>
    <prism:pageRange>467-483</prism:pageRange>
    <prism:coverDate>2017-04-01</prism:coverDate>
    <prism:coverDisplayDate>1 April 2017</prism:coverDisplayDate>
    <prism:doi>10.1016/j.tourman.2016.09.009</prism:doi>
    <pii>S0261517716301698</pii>
    <dc:description>
      © 2016 Elsevier LtdConsumer-generated content has provided an important new information medium for tourists, throughout the purchasing lifecycle, transforming the way that visito
      select and share experiences about tourism. Research in this area has largely focused on quantitative ratings provided on websites. However, advanced techniques for linguistic an
      provide the opportunity to extract meaning from the valuable comments provided by visitors. In this paper, we identify the key dimensions of customer service voiced by hotel visi
      data mining approach, latent dirichlet analysis (LDA). The big data set includes 266,544 online reviews for 25,670 hotels located in 16 countries. LDA uncovers 19 controllable di
      are key for hotels to manage their interactions with visitors. We also find differences according to demographic segments. Perceptual mapping further identifies the most importan
      according to the star-rating of hotels. We conclude with the implications of our study for future research and practice.
    </dc:description>
    <citedby-count>0</citedby-count>
```

APIs Limitation

- API keys delivers up to 20,000 requests per week that depend on each API name

#	API Name	Enabled/Disabled	Non-subscriber	Subscriber	Quota
1	Serial Title	Enabled	STANDARD, COVERIMAGE views / Default 25 results / Max 200 results	STANDARD, COVERIMAGE, ENHANCED Default 25 results / Max 200 results	20,000
2	Citations Count Metadata	Disabled	STANDARD view / Default 25 results / Max 200 results	STANDARD view / Default 25 results / Max 200 results	50,000
3	Citations Overview	Disabled	STANDARD view / Default 25 results / Max 200 results	STANDARD view / Default 25 results / Max 200 results	20,000
4	Subject Classifications	Enabled	No restrictions	No restrictions	N/A
5	Abstract Retrieval	Enabled	META view	All views, default FULL view	10,000
6	Affiliation Retrieval	Enabled	N/A	All views, default STANDARD view	5,000
7	Author Retrieval	Enabled	N/A	All views / Max 25 results	5,000
8	Affiliation Search	Enabled	N/A	Default 25 results / Max 200 results	5,000
9	Author Search	Enabled	N/A	Default 25 results / Max 200 results	5,000
10	Scopus Search	Enabled	STANDARD view / Default 25 results	STANDARD view / Max 200 results COMPLETE view / Max 100 results COMPONENT view / Max 100 results	20,000

****Quotas are reset every 7 days.**