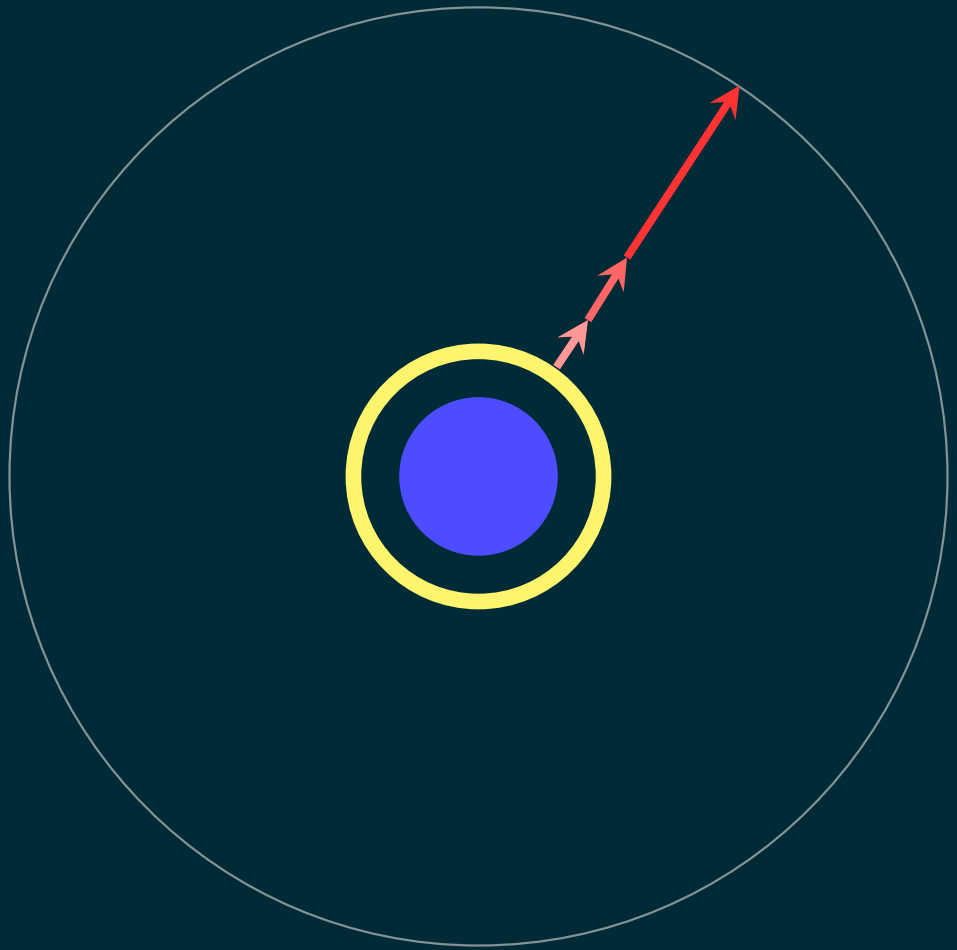
Accessing open research literature with Python

@NikoletaGlyn



http://matt.might.net/articles/phd-school-in-pictures/

Scholarly Databases

API

QUERY

http://ieeexplore.ieee.org/gateway/ipsSearch.jsp?ti=Namibia&hc=100

QUERY

http://ieeexplore.ieee.org/gateway/ipsSearch.jsp?ti=Namibia&hc=100

http://api.plos.org/search?q=title:Namibia&rows=100

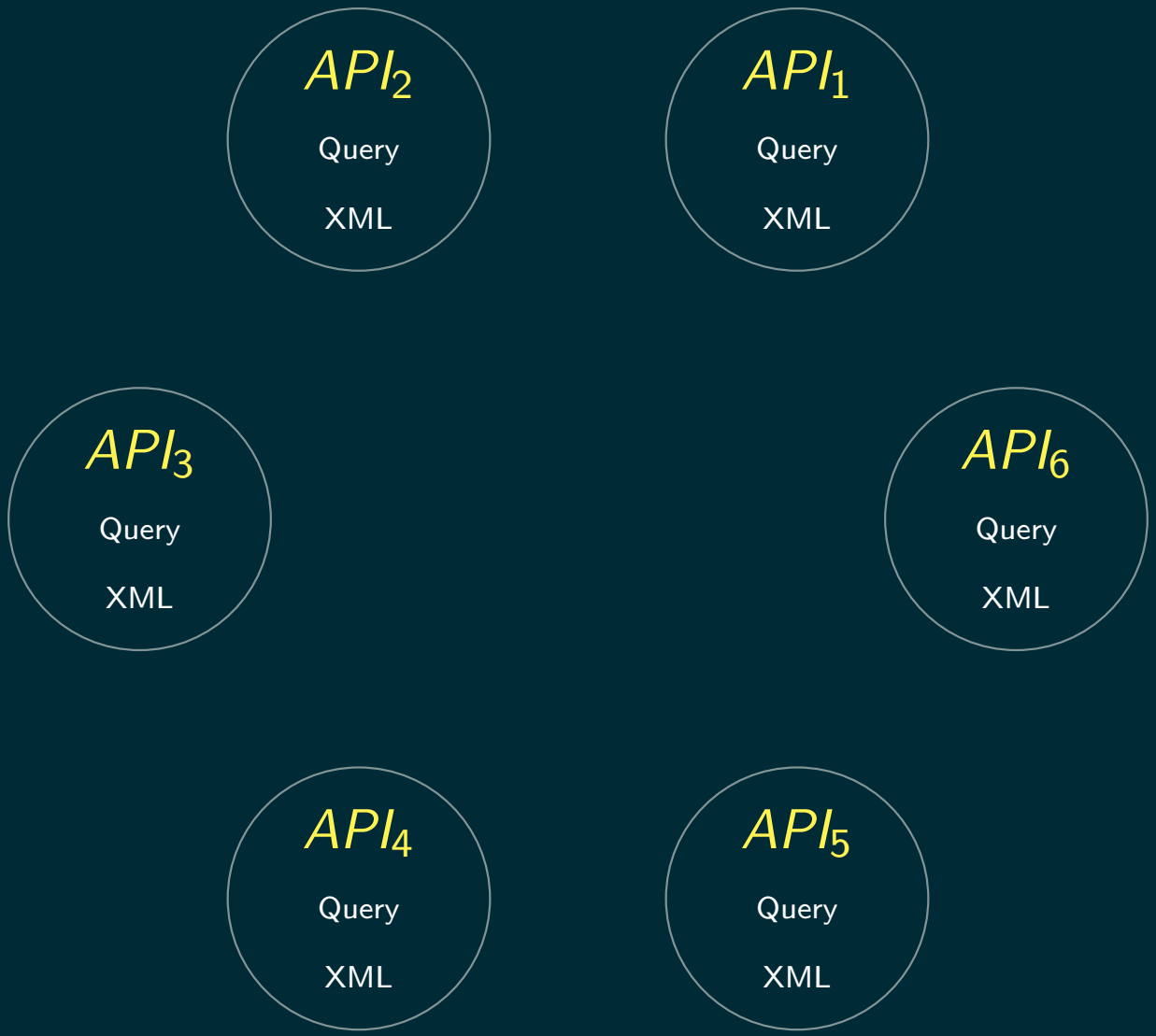
QUERY

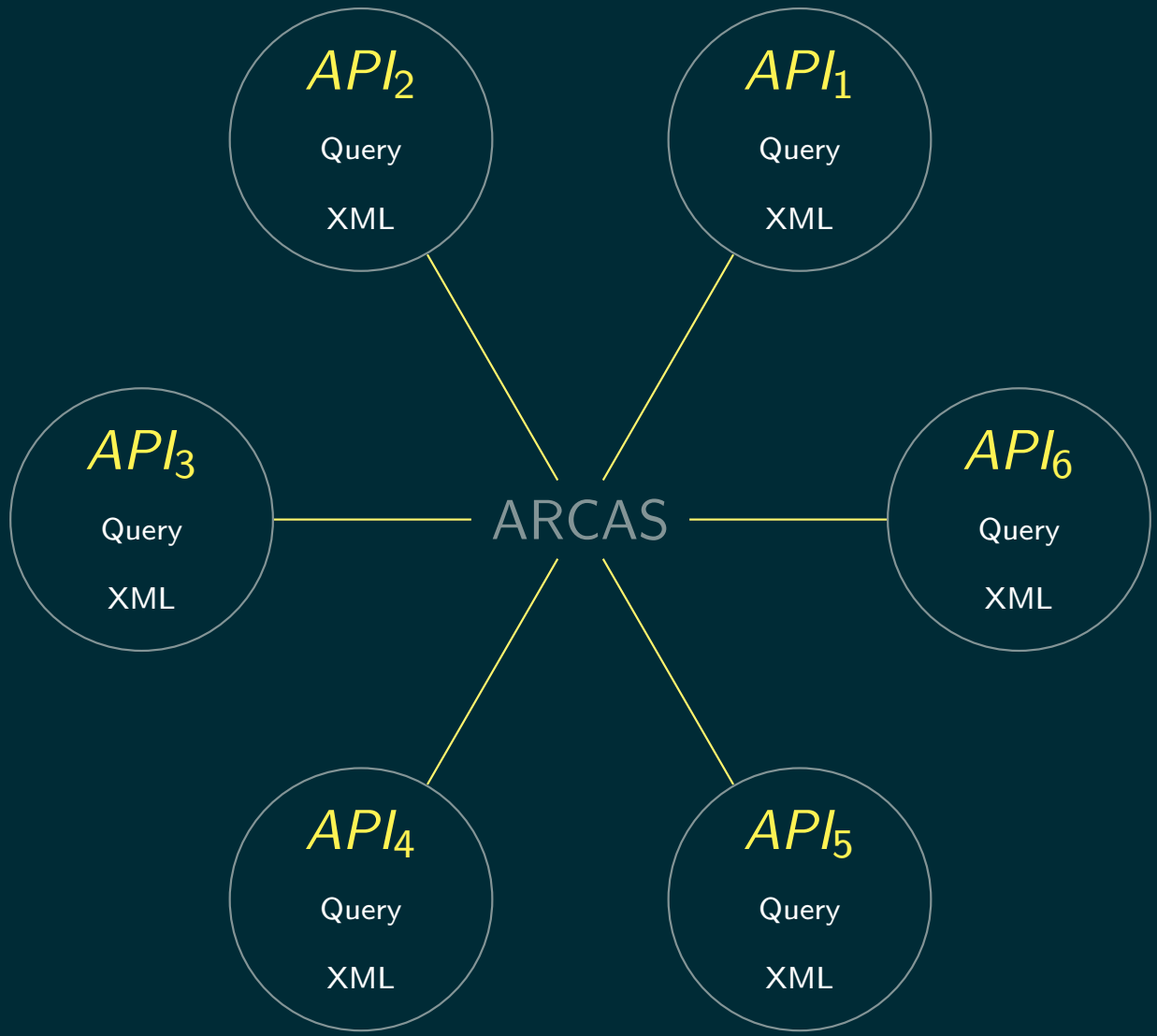
http://ieeexplore.ieee.org/gateway/ipsSearch.jsp?ti=Namibia&hc=100

http://api.plos.org/search?q=title:Namibia&rows=100

http://www.nature.com/opensearch/request?queryType=cql&query=dc.title%20adj%20Namibia&maximumRecords=100

...

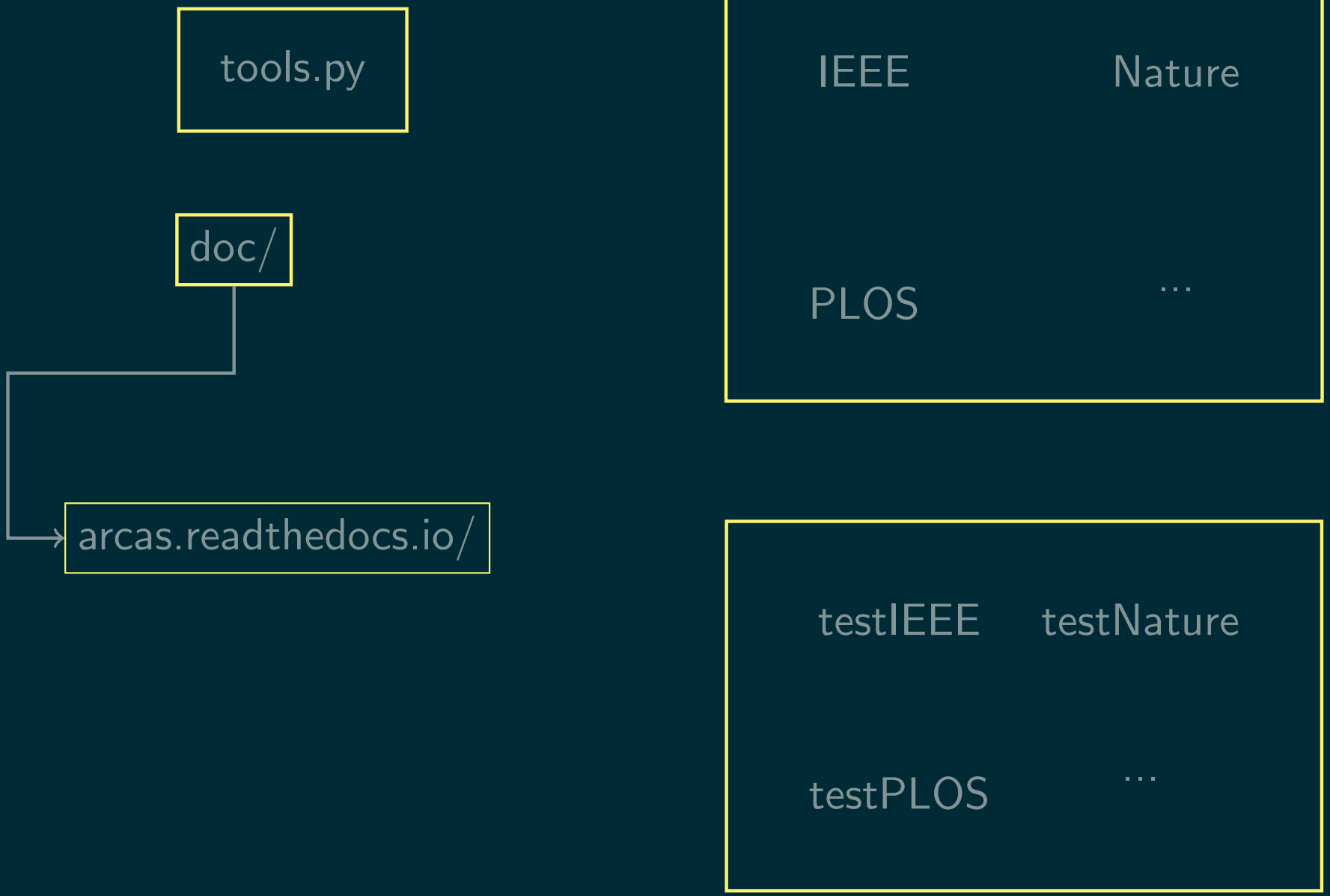

API_2
Query
XML
API_1
Query
XML
API_3
Query
XML
API_6
Query
XML
API_4
Query
XML
API_5
Query
XML


API_2
Query
XML
API_1
Query
XML
API_3
Query
XML
ARCAS
API_6
Query
XML
API_4
Query
XML
API_5
Query
XML

```
import arcas

arguments = {'-a': None, '-t': 'Namibia',
             '-s': None, '-r': 1, '-y': None, '-b': None}

api =  arcas.Ieee()

parameters = api.parameters_fix(arguments)

url = api.create_url_search(parameters)
request = api.make_request(url)
response = api.get_root(request)
root = api.get_root(response)
raw_article = api.parse(root)
article = api.to_dataframe(raw_article)
```

```
import arcas

arguments = {'-a': None, '-t': 'Namibia', '-s': None,
             '-r': 100, '-y': None, '-b': None}

for p in [arcas.Ieee, arcas.Plos, arcas.Arxiv,
          arcas.Nature, arcas.Springer]:
    api = p()
    parameters = api.parameters_fix(arguments)

    url = api.create_url_search(parameters)
    request = api.make_request(url)
    response = api.get_root(request)
    root = api.get_root(response)
    raw_article = api.parse(root)

    for art in raw_article:
        article = api.to_dataframe(raw_article)
        api.export(articles, 'results.json')
```

```
{"key":{"0":"Momose2011",
        "1":"Momose2011",
        "2":"Momose2011"},
"unique_key":{"0":"4061b0ca3b823f85a0cb2823a554c524",
              "1":"4061b0ca3b823f85a0cb2823a554c524",
              "2":"4061b0ca3b823f85a0cb2823a554c524"},
"title":{"0":"Mapping pegmatite using HyMap data in southern Namibia",
         "1":"Mapping pegmatite using HyMap data in southern Namibia",
         "2":"Mapping pegmatite using HyMap data in southern Namibia"},
"author":{"0":"Atsushi Momose",
          "1":"Atsushi Momose",
          "2":"Atsushi Momose"},
"abstract":{"0":"A pegmatite deposit is an ..."},
"date":{"0":2011,
        "1":2011,
        "2":2011},
"journal":{"0":"2011 IEEE International Geoscience and Remote Sensing Symposium",
           "1":"2011 IEEE International Geoscience and Remote Sensing Symposium",
           "2":"2011 IEEE International Geoscience and Remote Sensing Symposium"},
"pages":{"0":"2216-2217",
         "1":"2216-2217",
         "2":"2216-2217"},
"key_word":{"0":"data analysis",
            "1":"geophysical image processing",
            "2":"geophysical techniques"},
"provenance":{"0":"IEEE",
              "1":"IEEE",
              "2":"IEEE"}}
```


tools.py
doc/
arcas.readthedocs.io/
IEEE
Nature
PLOS
...
testIEEE
testNature
testPLOS
...

```
arcas_scrape -h

Arcas. A library to facilitate scraping of APIs for scholarly resources.

Usage:
    arcas_scrape  [-h] [-p API] [-a AUTHOR] [-t TITLE] [-b ABSTRACT]
    [-y YEAR] [-r RECORDS] [-s START] [-v VALIDATE] [-f FILENAME]
    arcas_scrape --version


Options:
    -h --help               Show this
    --version               Show version.
    -p API                  The online API, from a given list, to parse [default: arxiv]
    -a AUTHOR               Terms to search for in Author
    -t TITLE                Terms to search for in Title
    -b ABSTRACT             Terms to search for in the Abstract
    -y YEAR                 Terms to search for in Year
    -r RECORDS              Number of records to fetch
    -s START                Sequence number of first record to fetch
    -v VALIDATE             Checks if query returned with arguments asked [default: False]
    -f FILENAME             Name of json file [default: results.json]
```

I academic API so you don't have to!

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https://github.com/Nikoleta-v3/Arcas
@SoftwateSaved
@PhoenixCUni