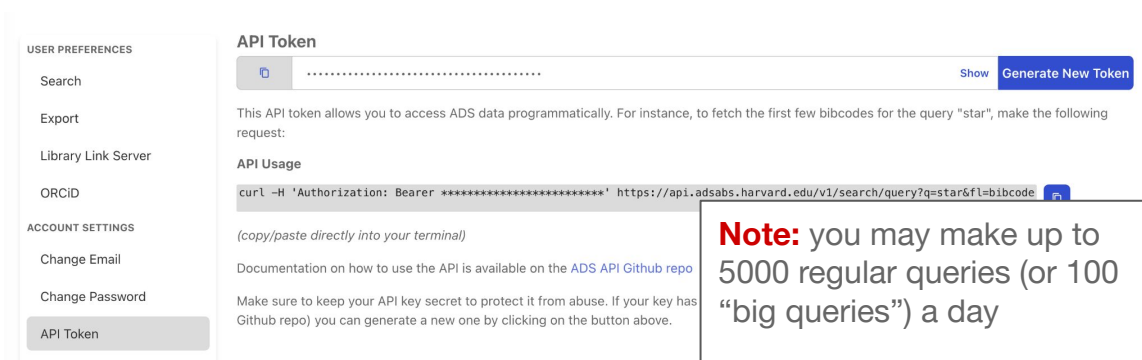# Using the SciX API

1. Get an API token. In your new SciX account, click **Account** > **Customize Settings**, then click on **API Token** in the left sidebar. Click the **Generate a new key** button - your API token is the long series of letters and numbers in the box.

Note: you may make up to 5000 regular queries (or 100 "big queries") a day

2. Choose an access method. There are several ways to make queries using the API; choose the method that works best for you:
- Command line using `curl`*****
  - Best for: quick queries, learning to create API searches
- Python scripts using the `requests`***** library
  - Best for: creating scripts, easy translation between command line `curl` requests and Python
- Python scripts using the unofficial `SciX` library
  - Best for: creating advanced scripts, efficient memory usage

3. Start searching. Searches using the API rely on building and sending URLs, similar to what you'd see in your web browser. Syntax varies based on the access method, but searches with starred (*****) access methods need the following:
- Type of call/HTTP method: **GET** (default), **POST**, or **PUT**; check the SciX API documentation (https://ui.adsabs.harvard.edu/help/api/; currently named ADS API) to get the correct method for your type of request
- Your API token, sent as a header (see examples)
- Base URL: https://api.adsabs.harvard.edu/v1
- Endpoint: the part after the **base URL**, separated with front-slashes. This varies based on your request, e.g. **/search** for simple searches
- Query string: for /search requests, the URL-encoded query parameters, e.g. /query?q={search parameters}
- Example search URL (uses GET method):
  https://api.adsabs.harvard.edu/v1/search/query?q=climate+change

SciX API search examples

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QUICK FIELD: **author** **first author** **abstract** **year** **fulltext** | all search terms ▾

`author:"martinez" neutron star` ✕ 🔍

Your search returned **144** results

QUICK FIELD: **author** **first author** **abstract** **year** **fulltext** | all search terms ▾

`bibstem:"ApJ" year:2015` ✕ 🔍

Your search returned **3,055** results

- Command line, using `curl`

```
curl -H "Authorization: Bearer token"
"https://api.adsabs.harvard.edu/v1/search/query?q=author%3Amart
%C3%ADnez+neutron+star"

curl -H "Authorization: Bearer token"
"https://api.adsabs.harvard.edu/v1/search/query?q=bibstem%3AApJ
%20year%3A2015&sort=citation_count%20desc
```

- Python, using the `requests` library

```
import requests

r=requests.get('https://api.adsabs.harvard.edu/v1/search/query?
q=author%3Amart%C3%ADnez+neutron+star',
headers={'Authorization': 'Bearer token'})

r=requests.get('https://api.adsabs.harvard.edu/v1/search/query?
q=bibstem%3AApJ%20year%3A2015&sort=citation_count%20desc',
headers={'Authorization': 'Bearer token'})
```

- Andy Casey's unofficial `ADS/SciX` Python module

```
import ads

ads.config.token = 'token'

r = ads.SearchQuery(q='author:martinez neutron star')

r = ads.SearchQuery(q='bibstem:ApJ year:2015',
sort="citation_count")
```

SciX

[SciXplorer.org]