

# WIKIDATA

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# ABOUT ME

- From: Elbasan, Albania
- Profession: ICT engineer
- Editor at Wikipedia since 2013.



# Today agenda

## Part I

### Greta

Wikidata – introduction

- ▶ Usage of Wikidata
- ▶ Tools
- ▶ Queries
- ▶ How-to

## Part II

### Daniel

- ▶ Queries
- ▶ Practical examples
- ▶ Q&A

WIKIDATA

# INTRODUCTION

- ▶ launched 2012
- ▶ maintained by Wikimedia Deutschland
- ▶ funded by „Allen Institute for Artificial Intelligence“, „Gordon and Betty Moore Foundation“, Google and Yandex

# DATABASE OF WORLD'S KNOWLEDGE

## **Wikipedia**

World's knowledge in form of an encyclopedia  
with edited articles for humans

## **Wikidata**

World's knowledge in form of a database with  
structured data for „computers“

# WIKIDATA – FAST FACTS

- ▶ sister project of Wikipedia
- ▶ structured data
- ▶ anyone can edit
- ▶ 24,5 millions data items
- ▶ multilingual
- ▶ CC0 license



IMAGE: SANDRA FAUCONNIER CC0

## DATA USAGE

- ▶ anybody can use for free
- ▶ usage in Wikipedia
- ▶ tools
- ▶ self-made queries

**important**

EACH NEW ARTICLE SHOULD ALSO BE  
ADDED TO WIKIDATA!

## ADVANTAGES

- ▶ structured data
- ▶ managing interwiki links
- ▶ helps Wikipedia editing
- ▶ reduces risk of duplicate entries
- ▶ consistent data in all projects
- ▶ future usage in Wikipedia

The background image shows a wide, sandy beach curving along a deep blue sea. The beach is lined with numerous small umbrellas and some low-rise buildings. In the foreground, a person is sitting on a rocky, grassy hillside, looking down at the scene. The terrain is a mix of green vegetation and brown, rocky ground.

# Wikidata USAGE OF DATA

# tools.wmflabs.org/reasonator

## Princess Sophie of Schönburg-Waldenburg (Q287857)

Sophie of Schönburg-Waldenburg | ソフィー・フォン・ショーンブルク=ヴァルデンブルク | Sofia de Schönburg-Waldenburg | Sophie van Schoenburg-Waldenburg | Sophie van Schonburg-Waldenburg | Sophie von Schönburg-Waldenburg | ソフィー・フォン・シェーンブルク=ヴァルデンブルク | Princesha Sofi | Zofia Schönburg-Waldenburg | Printesa Sofia de Schönburg-Waldenburg | Sofia di Schönburg-Waldenburg | Sophie van Schönburg-Waldenburg | Sophie de Schonbourg-Waldenburg

German opera singer

**Princess Sophie of Schönburg-Waldenburg** was a German opera singer.

She was born on May 21, 1885 in Potsdam.

She married William, Prince of Albania. Her children include Carol Victor, Hereditary Prince of Albania.

She died on February 3, 1936 in Hemeiuş.



### Relatives

Parents

Siblings

Children

Other

**child** ♂ Carol Victor, Hereditary Prince of Albania

**spouse** ♂ William, Prince of Albania

See the full family tree: [inline/new page](#)

### Other properties

**place of birth** Potsdam capital city of the German state of Brandenburg

**place of death** Hemeiuş commune in Bacău County, Romania

### External sources

Freebase /m/03by8ld

GND 117347582

VIAF 8163238

### Wikimedia projects

Current language Wikipedias

en Princess Sophie of Albania

Big Wikipedias

de Sophie von Schönburg-Waldenburg

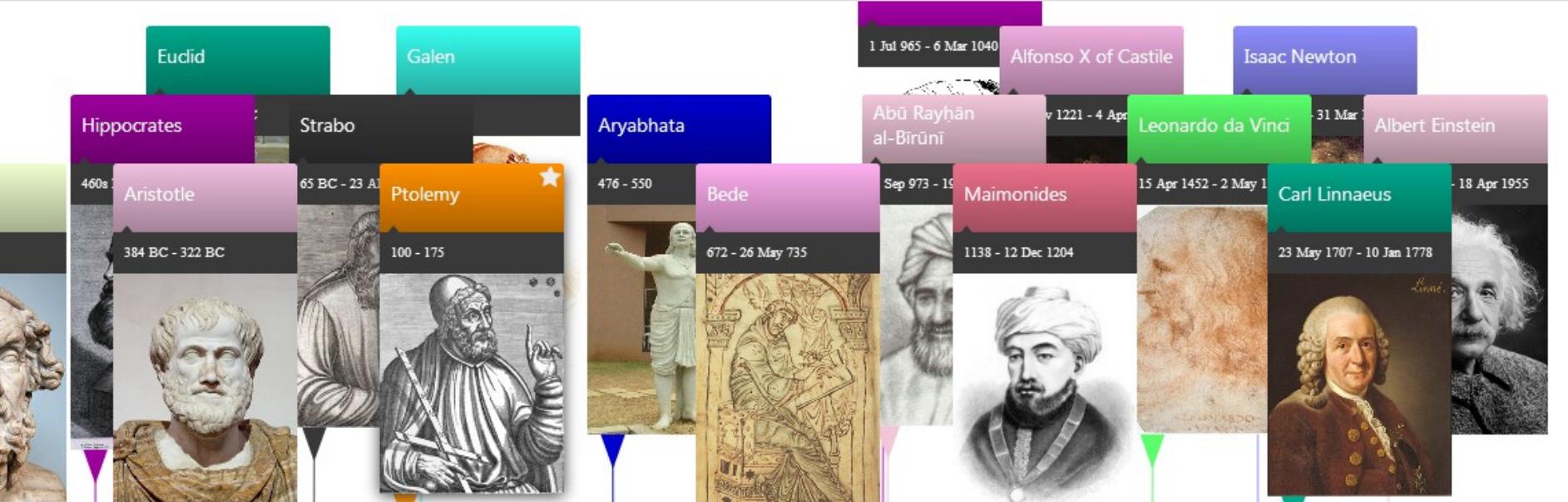
es Sofia de Albania

# Histropedia.com

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Timeline of Scientists

Key figures shown:

- Homer (8th century BC)
- Aristotle (384 BC - 322 BC)
- Hippocrates (460s BC)
- Euclid (c. 300 BC)
- Strabo (65 BC - 23 AD)
- Ptolemy (100 - 175 AD)
- Aryabhata (476 - 550 AD)
- Bede (672 - 735 AD)
- Alfonso X of Castile (1221 - 1284 AD)
- Abū Rayhān al-Bīrūnī (Sep 973 - 1048 AD)
- Maimonides (1138 - 1204 AD)
- Leonardo da Vinci (1452 - 1519 AD)
- Isaac Newton (1643 - 1727 AD)
- Carl Linnaeus (1707 - 1778 AD)
- Albert Einstein (1879 - 1955 AD)

Timeline Labels: 100BC, 800BC, 700BC, 600BC, 500BC, 400BC, 300BC, 200BC, 100BC, 1BC, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2000, 2100, 2200AD

Scientist Timeline

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Event Spacing    Compact Sign In

chaos communite

W Chaos Communication Congress 1984 - Present

W Chaos communications

W Chaos Communication Camp

W Chaos or Community 1967

Wikipedia

Twitter

Books

TV & Film

Music

YouTube

# Askplatyp.us

Ask me anything

alpha version



who is the president of Central African Republic



Result

Show internal results

Catherine Samba-Panza  



Catherine Samba-Panza (born 26 June 1956) was interim President of the Central African Republic from 2014 to 2016, and the first woman to hold the post. Prior to becoming head of state, she was Mayor of Bangui from 2013 to 2014. [Wikipedia](#)

This query engine is the result of the Master's degree project of seven students.

If you are interested by some technical aspects, please have a look at the [project website](#).

# WIKIDATA QUERIES

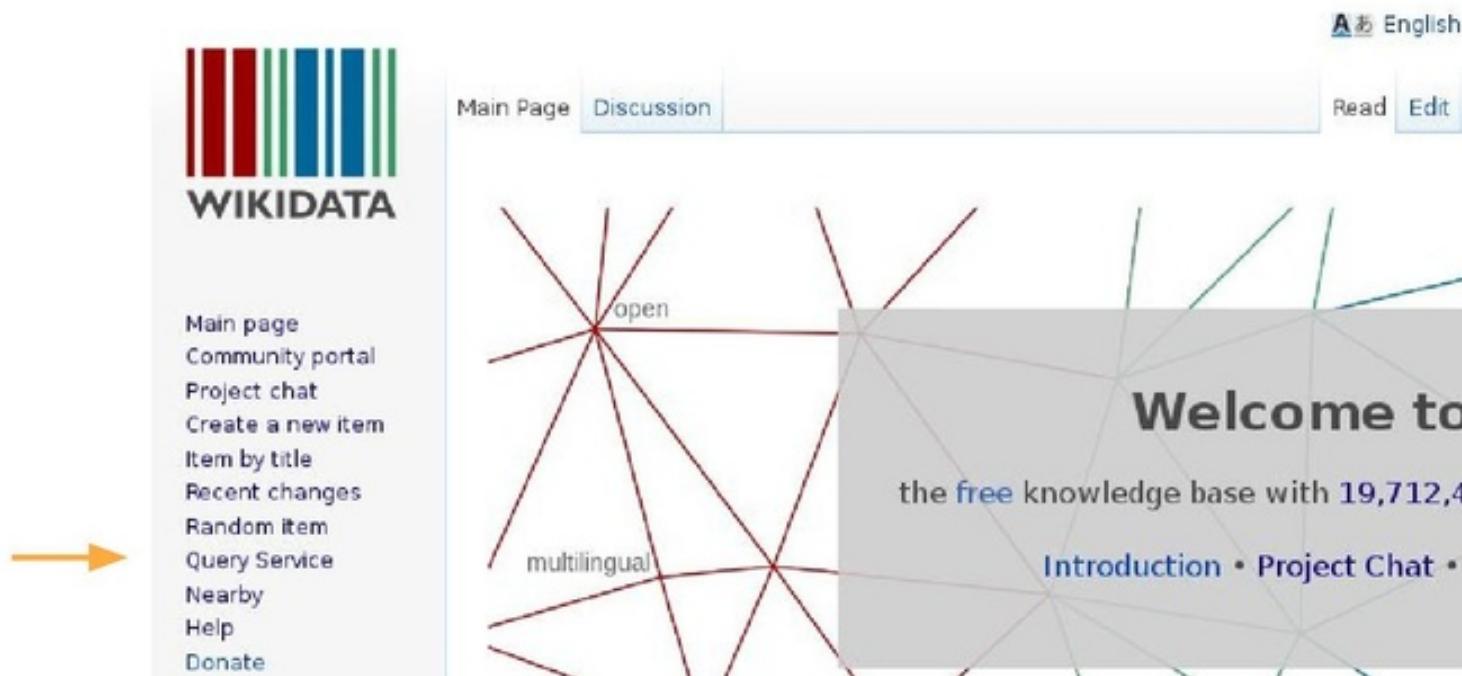
► *query.wikidata.org*

search database with SPARQL — use > Help >  
Examples

► much more tools

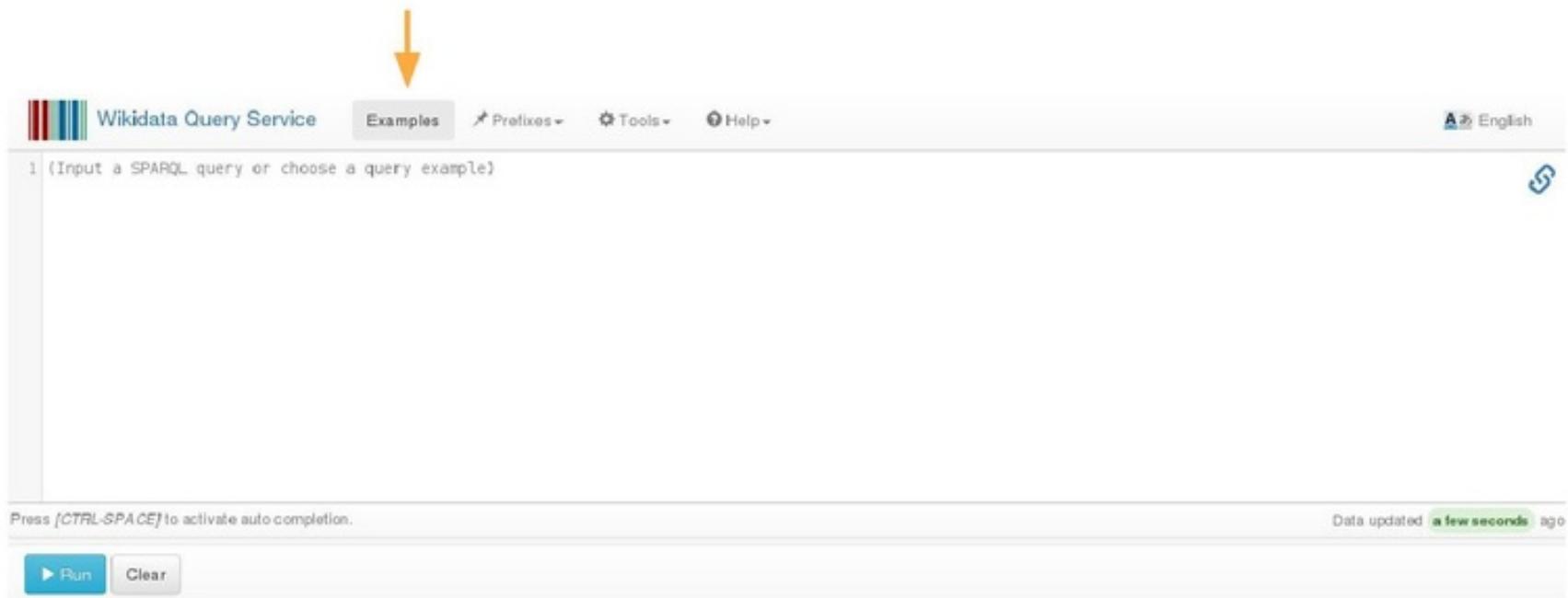
► your own queries

Open the query interface: [query.wikidata.org](https://query.wikidata.org)



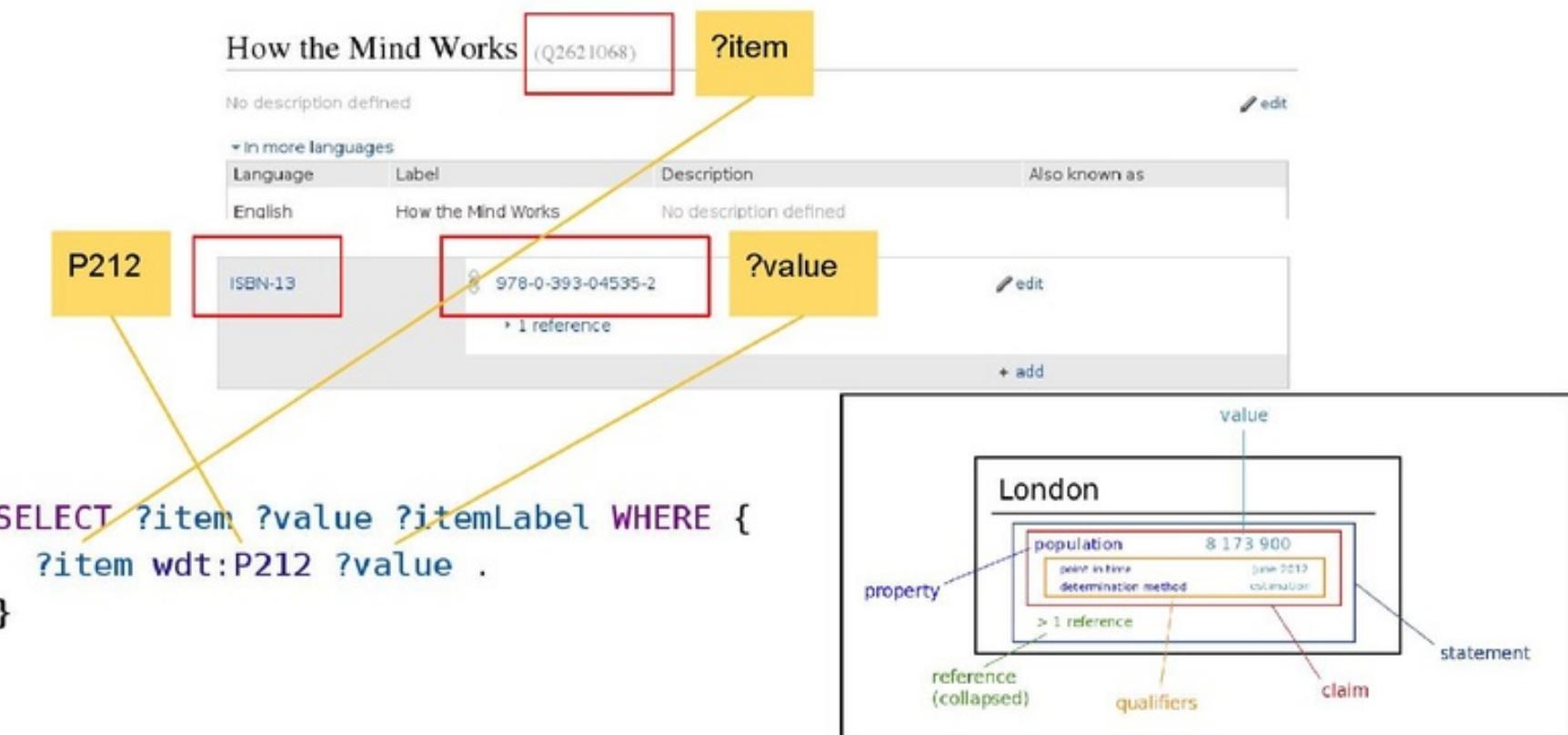
# QUERY.WIKIDATA.ORG

Learn from the existing examples



The screenshot shows the Wikidata Query Service interface. At the top, there is a navigation bar with the service logo, a search bar labeled "Wikidata Query Service", and tabs for "Examples", "Prefixes", "Tools", and "Help". On the far right, there is a language switcher set to "English" and a user icon. Below the navigation bar is a large input field containing the placeholder text "1 (Input a SPARQL query or choose a query example)". To the right of this input field is a blue "Run" button with a play icon and a "Clear" button. At the bottom of the interface, there is a status message: "Press [CTRL-SPACE] to activate auto completion." and "Data updated a few seconds ago". An orange arrow points downwards towards the "Examples" tab.

# What do these triplets mean?



# List of monuments in Kosova-map



Wikidata Query

Examples

Prefixes ▾

Tools ▾

Help ▾

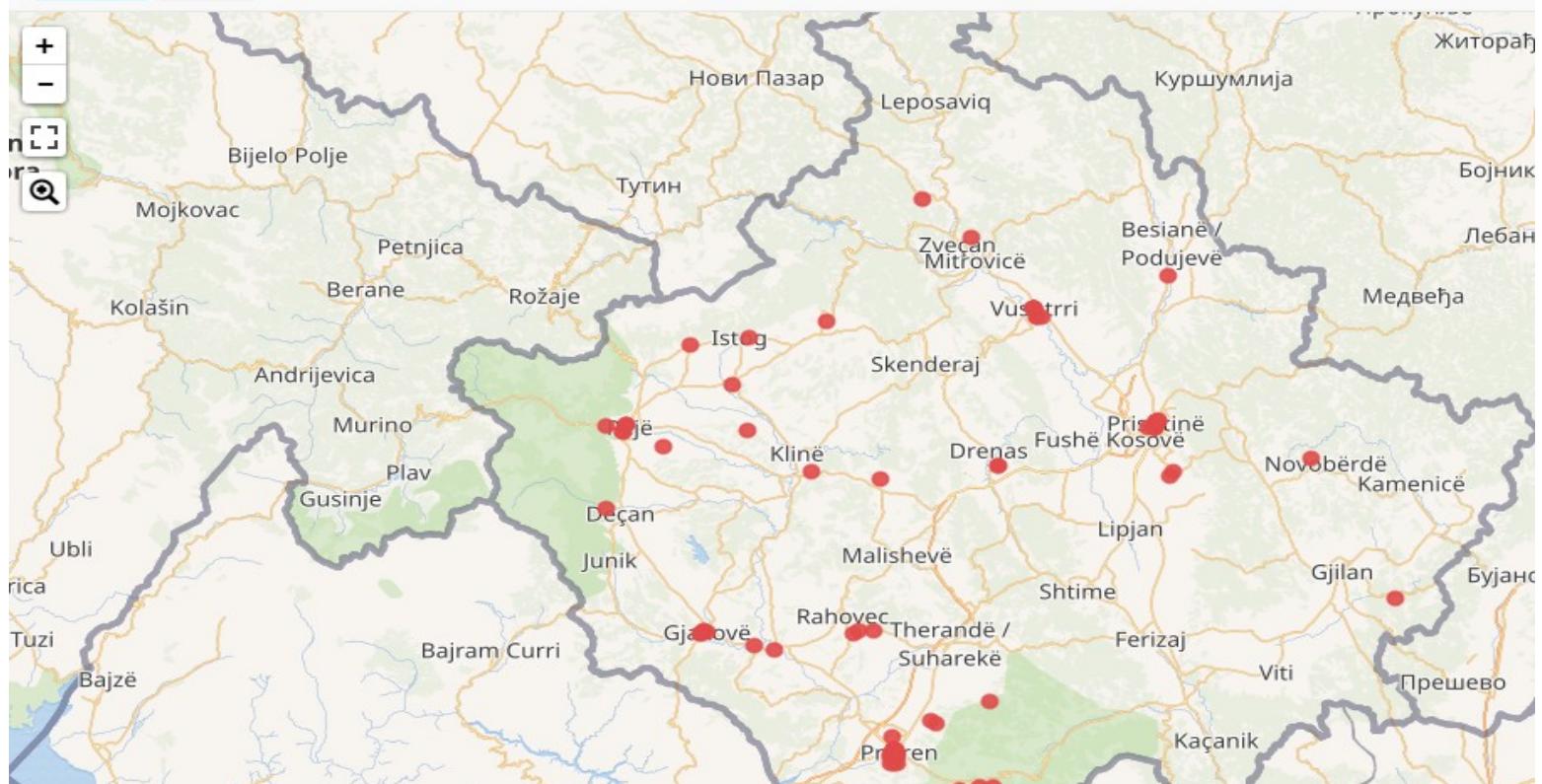
```
1 # All items that have p3170 set and some other optional information. Also works as a map
2 SELECT DISTINCT ?item ?itemLabel ?heritageId ?adminLabel ?coord ?image ?typeLabel ?sitelink
3 WHERE
4 {
5     ?item wdt:P3227 ?heritageId .
6     OPTIONAL { ?item wdt:P131 ?admin }
7     OPTIONAL { ?item wdt:P625 ?coord }
8     OPTIONAL { ?item wdt:P18 ?image }
9     OPTIONAL { ?item wdt:P31 ?type }
10    OPTIONAL { ?sitelink schema:about ?item . ?sitelink schema:inLanguage "sq" }
11    SERVICE wikibase:label { bd:serviceParam wikibase:language "en,sq,fr,de,sr" }
12 }
13 ORDER BY ?itemLabel
```

Press [CTRL-SPACE] to activate auto completion.

▶ Run

Clear

1173 Results in 1281 ms



# List of monuments in Kosova-table

Wikidata Query Examples Prefixes Tools Help

```
1 # All items that have p3170 set and some other optional information. Also works as a map
2 SELECT DISTINCT ?item ?itemLabel ?heritageId ?adminLabel ?coord ?image ?typeLabel ?sitelink
3 WHERE
4 {
5   ?item wdt:P3227 ?heritageId .
6   OPTIONAL { ?item wdt:P131 ?admin }
7   OPTIONAL { ?item wdt:P625 ?coord }
8   OPTIONAL { ?item wdt:P18 ?image }
9   OPTIONAL { ?item wdt:P31 ?type }
10  OPTIONAL { ?sitelink schema:about ?item . ?sitelink schema:inLanguage "sq" }
11  SERVICE wikibase:label { bd:serviceParam wikibase:language "en,sq,fr,de,sr" }
12 }
13 ORDER BY ?itemLabel
```

Press [CTRL-SPACE] to activate auto completion.

Run Clear 1173 Results in 1281 ms

item	wd:Q3324856
itemLabel	Bajrakli Mosque, Peć
heritageId	354
adminLabel	Peć District
coord	Point(20.2938 42.6531)
image	commons:Bajrakli Mosque, Peć, Kosovo.JPG
sitelink	< <a href="https://sq.wikipedia.org/wiki/Xhamia%20Bajrakli%20n%C3%AB%20Pej%C3%AB">https://sq.wikipedia.org/wiki/Xhamia%20Bajrakli%20n%C3%AB%20Pej%C3%AB</a> >
item	wd:Q3324856
itemLabel	Bajrakli Mosque, Peć
heritageId	354
adminLabel	Pejë
coord	Point(20.2938 42.6531)
image	commons:Bajrakli Mosque, Peć, Kosovo.JPG
sitelink	< <a href="https://sq.wikipedia.org/wiki/Xhamia%20Bajrakli%20n%C3%AB%20Pej%C3%AB">https://sq.wikipedia.org/wiki/Xhamia%20Bajrakli%20n%C3%AB%20Pej%C3%AB</a> >
item	wd:Q279689
itemLabel	Banjska monastery
heritageId	2880
adminLabel	Banjska
coord	Point(20.7825 42.971388888)
image	commons:View on Monastery Banjska.jpg
typeLabel	monastery
sitelink	< <a href="https://sq.wikipedia.org/wiki/Manastiri%20i%20Banjsk%C3%ABs">https://sq.wikipedia.org/wiki/Manastiri%20i%20Banjsk%C3%ABs</a> >

# List of people who discovered most planets-table

Wikidata Query Examples Prefixes Tools Help

```
1 #Who discovered the most planets? (with list)
2 #added before 2016-10
3 SELECT
4   ?discoverer ?discovererLabel
5   (COUNT(DISTINCT ?planet) as ?count)
6   (GROUP_CONCAT(DISTINCT(?planetLabel); separator=", ") as ?planets)
7 WHERE
8 {
9   ?ppart wdt:P279* wd:Q634 .
10  ?planet wdt:P31 ?ppart .
11  ?planet wdt:P61 ?discoverer .
12  SERVICE wikibase:label {
13    bd:serviceParam wikibase:language "en" .
14    ?discoverer rdfs:label ?discovererLabel .
15    ?planet rdfs:label ?planetLabel
16  }
17 }
18 GROUP BY ?discoverer ?discovererLabel
19 ORDER BY DESC(?count)
```

Press [CTRL-SPACE] to activate auto completion.

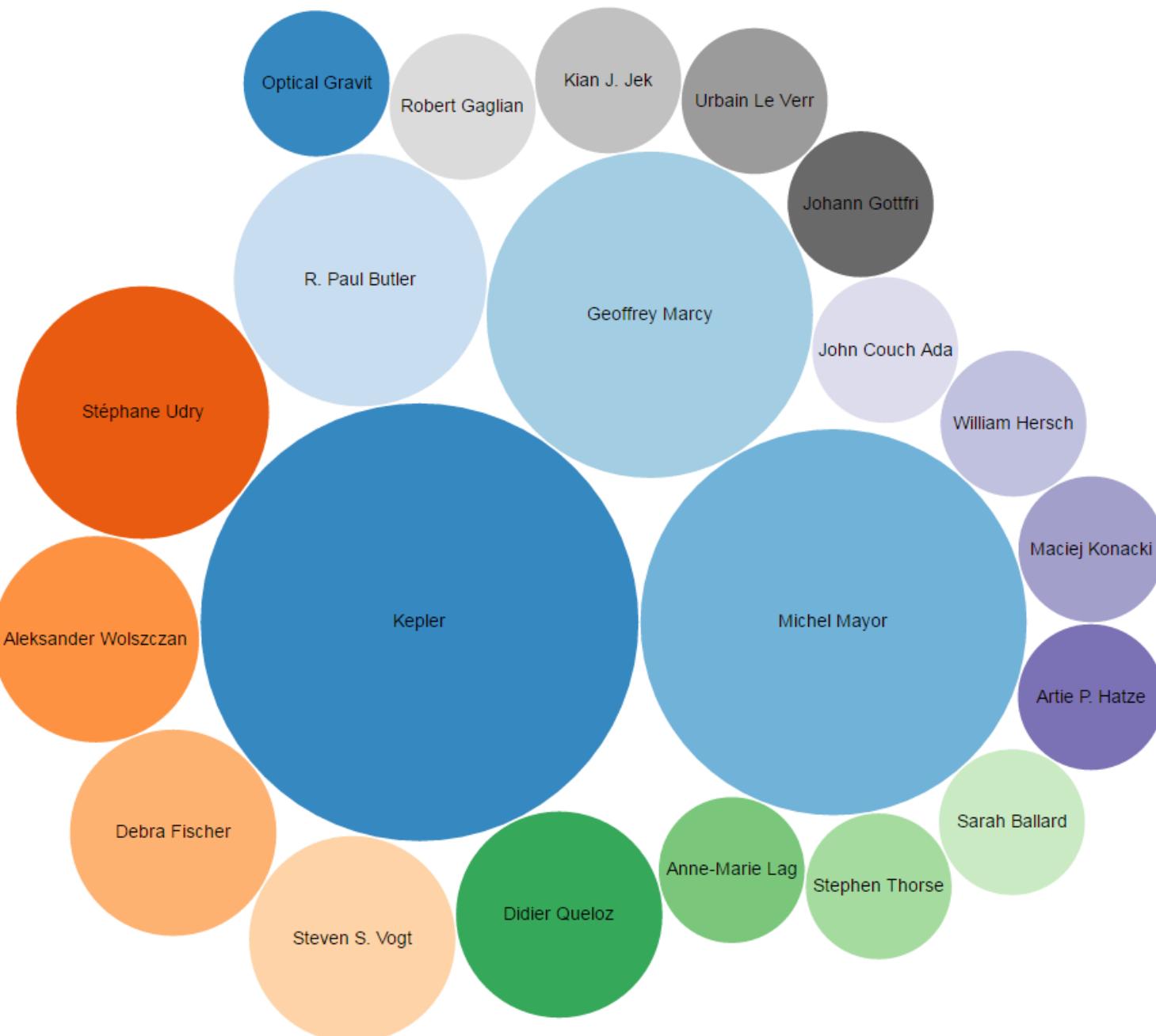
▶ Run

Clear

21 Results in 515 ms

discoverer	discovererLabel	count	planets
wd:Q47272	Kepler	9	KOI-1686.01, Kepler-62f, Kepler-62e, Kepler-296f, Kepler-296e, Kepler-18
wd:Q123975	Michel Mayor	7	HD 121504 b, HD 82943 c, HD 82943 b, HD 169830 b, HD 114386 b, HD 8
wd:Q736811	Geoffrey Marcy	5	Upsilon Andromedae b, HD 89307 b, Gliese 436 b, HD 52265 b, HD 11478
wd:Q1387698	R. Paul Butler	3	Upsilon Andromedae b, HD 52265 b, HD 114783 b
wd:Q120389	Stéphane Udry	3	HD 82943 c, HD 82943 b, HD 169830 b
wd:Q311958	Aleksander Wolszczan	2	PSR B1257+12 A, PSR B1257+12 B
wd:Q456119	Debra Fischer	2	HD 92788 b, HD 40979 b
wd:Q2347721	Steven S. Vogt	2	HD 52265 b, HD 114783 b
wd:Q124013	Didier Queloz	2	HD 6434 b, 51 Pegasi b
wd:Q2850870	Anne-Marie Lagrange	1	Beta Pictoris b
wd:Q7610684	Stephen Thorsett	1	PSR B1620-26 b

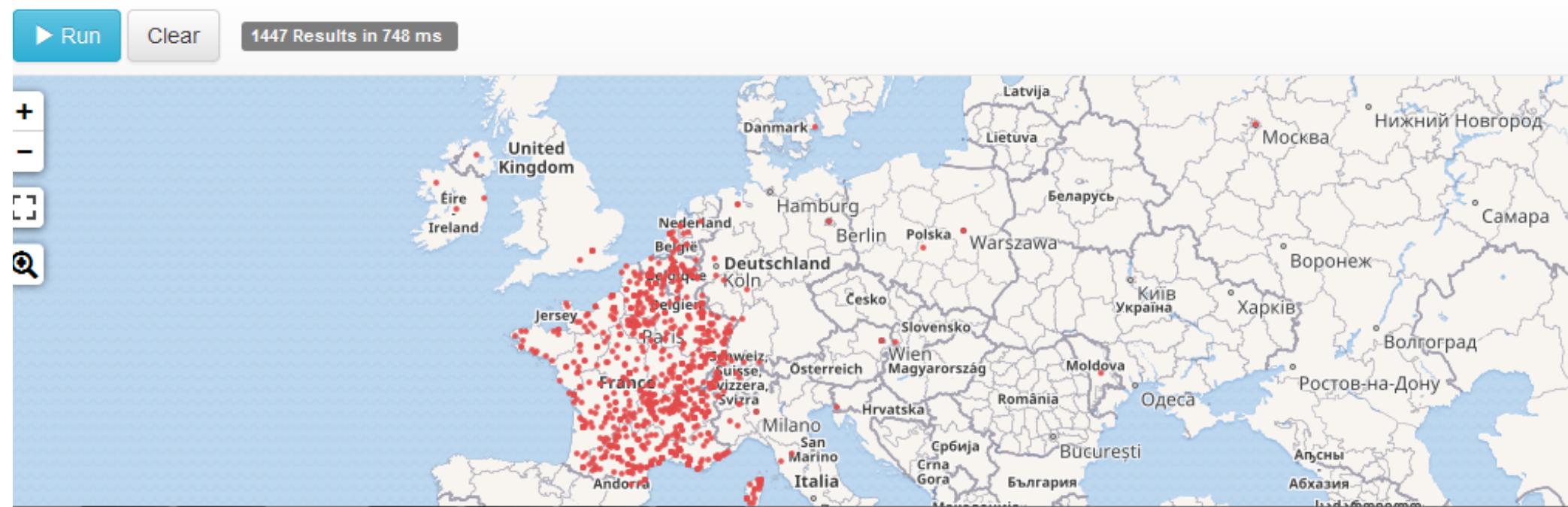
# List of people who discovered most planets-bubble



# Birthplaces/Name:Antoine

```
1 #Birthplaces of people named Antoine
2 #added before 2016-10
3
4 # Coordinates of the birth places of people named Antoine
5 #defaultView:Map
6 SELECT ?item ?itemLabel ?coord
7 WHERE
8 {
9   ?item wdt:P735 wd:Q15235674.
.0 ?item wdt:P19 ?place.
.1 ?place wdt:P625 ?coord.
.2 SERVICE wikibase:label { bd:serviceParam wikibase:language "fr". }
.3 }
```

Press [CTRL-SPACE] to activate auto completion.



# Birthplaces/Name:Erik



Wikidata Query

Examples

Prefixes ▾

Tools ▾

Help ▾

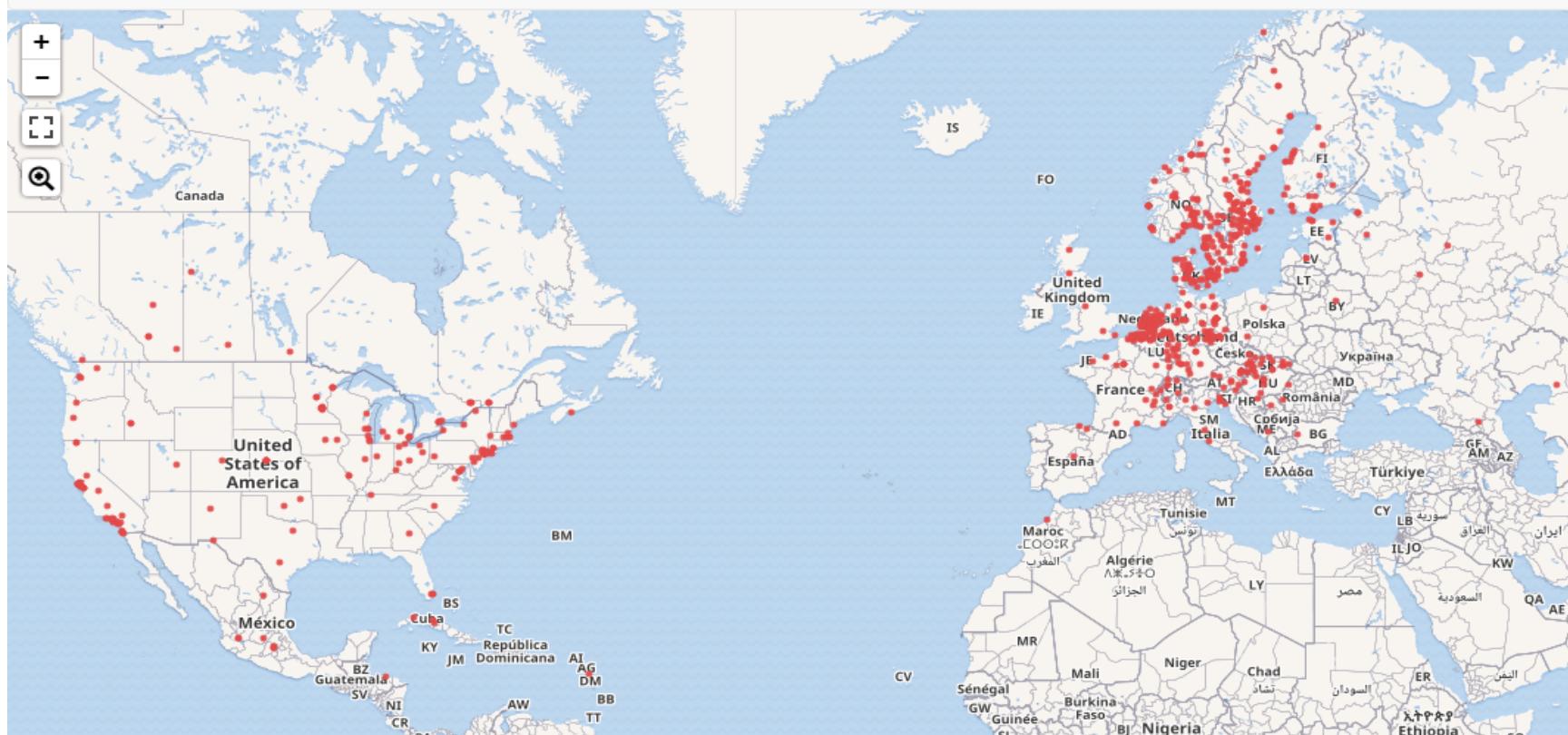
```
1 #Birthplaces of people named Erik
2 #added before 2016-10
3
4 # Coordinates of the birth places of people named Erik
5 #defaultView:Map
6 SELECT ?item ?itemLabel ?coord
7 WHERE
8 {
9   ?item wdt:P735 wd:Q750186.
10  ?item wdt:P19 ?place.
11  ?place wdt:P625 ?coord.
12  SERVICE wikibase:label { bd:serviceParam wikibase:language "en". }
13 }
```

Press [CTRL-SPACE] to activate auto completion.

▶ Run

Clear

948 Results in 855 ms

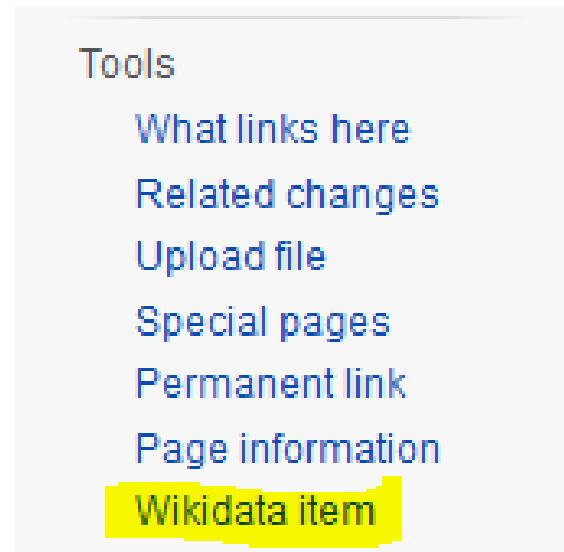


**Wikidata first steps**

**HOW-TO**

## BEST PRACTICES

- ▶ Check for Wikidata entry
- ▶ Add new Wikidata entry if missing
- ▶ Add description in your language
- ▶ Add additional data (+ sources)

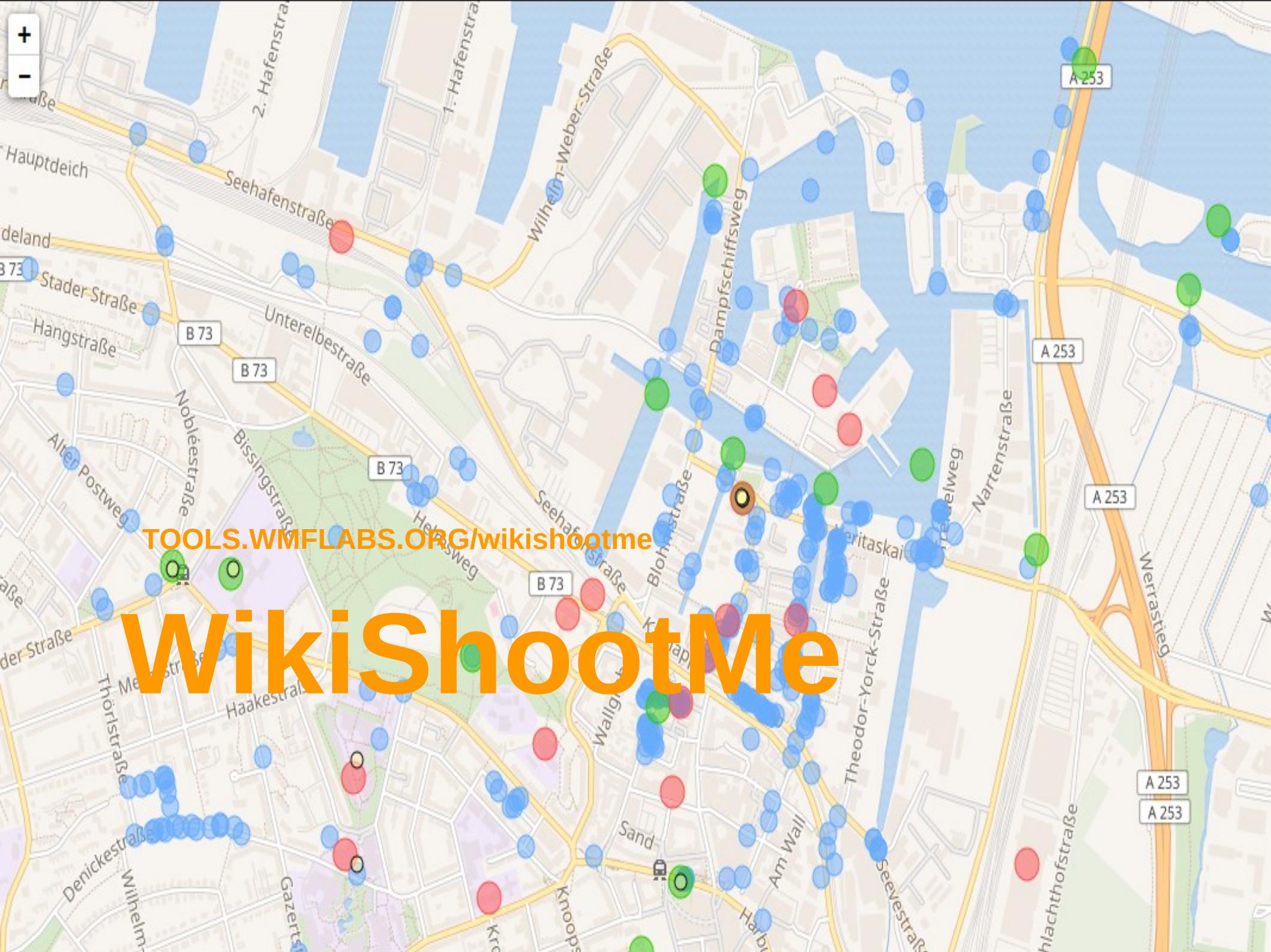


## PRACTICAL TEST

- ▶ Add new item
- ▶ Add Wikipedia language  
(maybe necessary to merge items)
- ▶ Add description in your language

# FUN WAYS TO IMPROVE WIKIDATA

- ▶ WikiShootMe
- ▶ Wikidata Game



WikiShootMe

[TOOLS.WMFLABS.ORG/wikishootme](https://tools.wmflabs.org/wikishootme)

# Wikidata Game

TOOLS.WMFLABS.ORG/wikidata-game

## Wikidata Game

Margott

This item has no "instance of", and could be a person.

Item Q25040725

Harlem Artists Guild

enwiki: Harlem Artists Guild

en.wikipedia.org: Harlem Artists Guild

The Harlem Artists Guild (1935–41) was an African-American organization founded by artists including Augusta Savage, Charles Alston, Elba Lightfoot and bibliophile Arthur Schomburg with the aims of encouraging young talent, providing a forum for the discussion of the visual arts in the community, fostering understanding between artists and the public through education towards an appreciation of art, focusing on issues of general concern to Black artists such as racism, poverty and unemployment, and cooperating with agencies to improve conditions and raise standards of living and achievement among African-American artists. It is said to have had its origins in the dissatisfaction of African-American artists with the activities of the Harmon Foundation, and was described by co-founder Alston as "a pressure group to get more black artists on the federal projects." == History == Formed in early 1935 by artists including Augusta Savage, Charles Alston and Elba Lightfoot, the Harlem Artists Guild...

Person

Not sure

Not a person

# NEED HELP?

ASK

- PROJECT CHAT
- IRC CHANNEL: #WIKIDATA
- @WIKIDATA