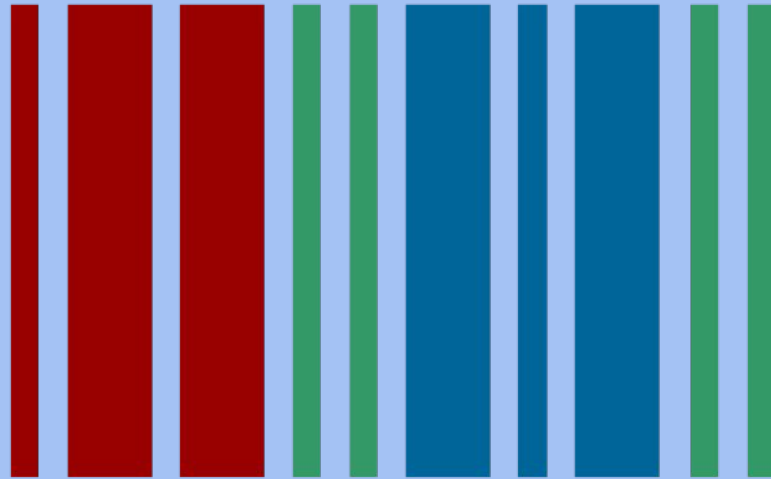


Introduction to



WIKIDATA

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Edinburgh, July 2017

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What is Wikidata?

- A knowledge base
- Part of the Wikimedia projects
- Structured data
- Linked to other databases
- Multilingual
- Collaborative
- Released under public domain (CC0)
- Based on facts and references
- Made for humans and machines

Why Wikidata?

- Started in 2012
- “Giving more people more access to more knowledge”
- Provide structured data for Wikipedia
- ...and the other Wikimedia projects
- ...and the rest of the world

South Pole Telescope

From Wikipedia, the free encyclopedia

Coordinates: 90°S 0°E

The **South Pole Telescope (SPT)** is a 10 meter (394 in) diameter telescope located at the **Amundsen–Scott South Pole Station**, Antarctica. The telescope is designed for observations in the **microwave**, **millimeter-wave**, and **submillimeter-wave** regions of the electromagnetic spectrum, with the particular design goal of measuring the faint, diffuse emission from the **cosmic microwave background (CMB)**.^[1] The first major survey with the SPT—designed to find distant, massive, **clusters of galaxies** through their interaction with the CMB, with the goal of constraining the **dark energy** equation of state—was completed in October 2011. In early 2012, a new camera was installed on the SPT with even greater sensitivity and the capability to measure the polarization of incoming light. This camera is designed to measure the so-called “B-mode” or “curl” component of the polarized CMB, leading to constraints on the mass of the **neutrino** and the energy scale of **inflation**.^[2]

The SPT collaboration is made up of over a dozen (mostly North American) institutions, including the **University of Chicago**, the **University of California-Berkeley**, **Case Western Reserve University**, **Harvard-Smithsonian Astrophysical Observatory**, the **University of Colorado-Boulder**, **McGill University**, **The University of Illinois at Urbana-Champaign**, **University of California at Davis**, **Ludwig Maximilian University of Munich**, **Argonne National Laboratory**, and the **National Institute for Standards and Technology**. It is funded by the **National Science Foundation**.

Contents [hide]

- Microwave/millimeter-wave observations at the South Pole
- The telescope
- The SPT-SZ camera
- The SPTpol camera
- Science goals
- Funding
- Current status
- See also
- References
- External links

Microwave/millimeter-wave observations at the South Pole [edit]

The South Pole is the premier observing site in the world for millimeter-wavelength observations. The Pole's high altitude (2.8 km/1.7 mi above sea level) means the atmosphere is thin, and the extreme cold keeps the amount of water vapor in the air low.^[3] This is particularly important for observing at millimeter wavelengths, where incoming signals can be **absorbed by water vapor**, and where water vapor emits radiation that can be confused with astronomical signals. Because the sun does not rise and set daily, the atmosphere at the pole is particularly stable. Further, there is no interference from the sun in the millimeter range during the months of polar night.

The telescope [edit]

The telescope is a 10-meter (394 in) diameter off-axis **Gregorian telescope** in an **altazimuth mount** (at the poles, an altazimuth mount is effectively identical to an **equatorial mount**). It

South Pole Telescope



The South Pole Telescope in November 2009

Location(s)	Amundsen–Scott South Pole Station, Antarctic Treaty area [?]
Coordinates	90°S 0°E<div><div></div></div>
Altitude	2.8 kilometre
Built	November 2006–February 2007
First light	16 February 2007
Telescope style	Gregorian telescope, radio telescope
Diameter	10.0 metre
Collecting area	78.5 square metre
Website	pole.uchicago.edu ?
 Related media on Wikimedia Commons	
 [edit on Wikidata]	

Let's have a look!

- <https://www.wikidata.org>
- Item Paris (Q90)
- IDs, labels and descriptions
- Statements = properties + values + qualifiers + references
- Old/complex data (country)
- External IDs (BNF)
- Links to other projects

What makes Wikidata special?

- Collaborative and free license
- We are aware that the world is complex
- Multiple tools to improve and query
- Awesome and diverse community

27 Million
items

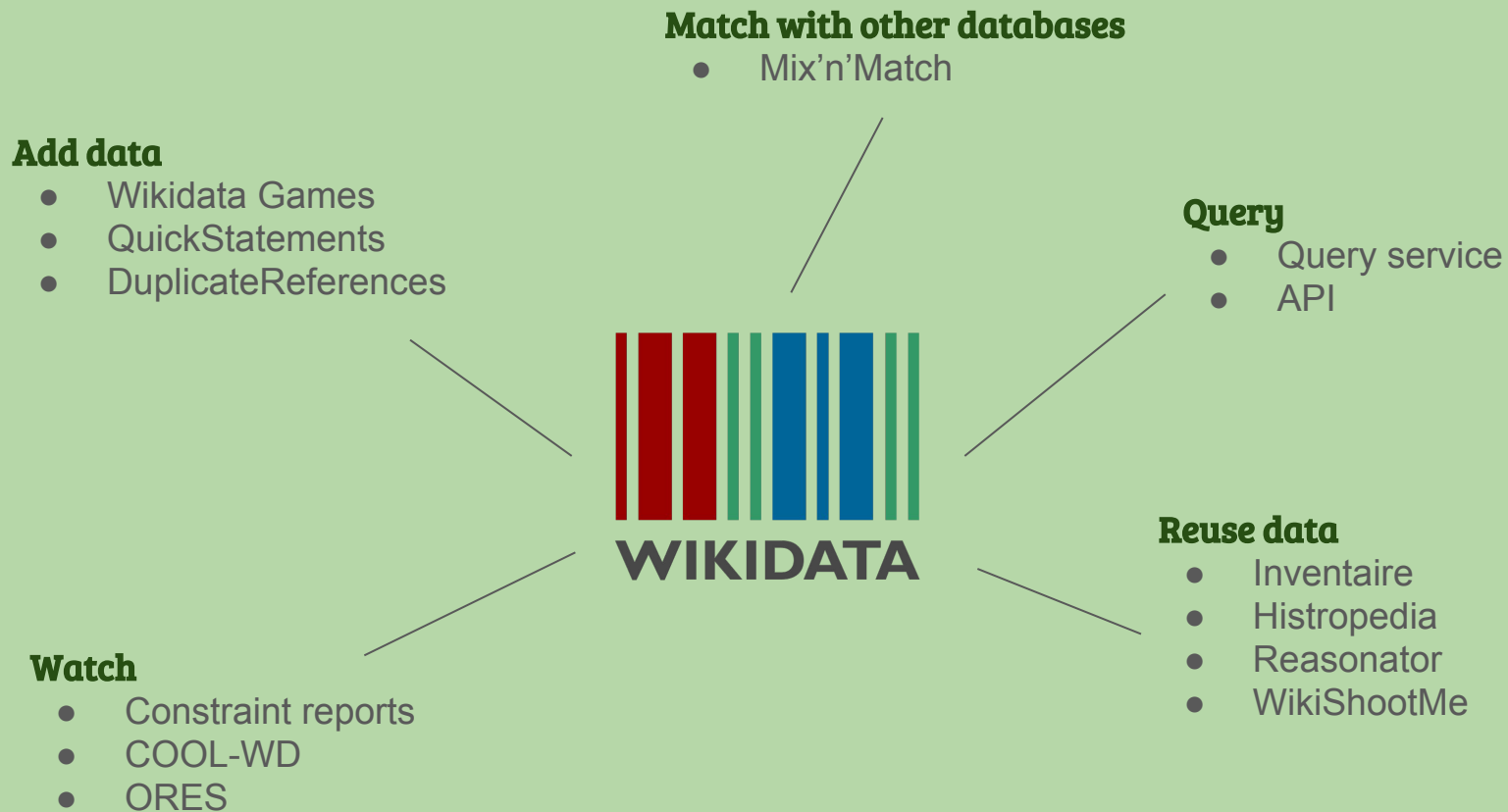
3200
properties

160 Million
statements

17 500
editors

3rd most active Wikimedia project
(after English Wikipedia and Commons)

A galaxy of tools around Wikidata



...and way more: <https://www.wikidata.org/wiki/Wikidata:Tools>

Wikidata Games



Wikidata - The game!

Here, you can find a set of "games" that help to improve [Wikidata](#), one statement at a time.



Random game

A random game, from the list below, is selected each time.
Makes for more variety.



Merge items

Some topics have duplicate items on Wikidata. Two items with the same title or alias will be suggested to you.
Merge identical topics, tag items as different, or skip an item pair if you are not sure. Please be very careful!



Person

Many items about people on Wikidata have no "instance of" property.
Decide if one of them is a [human](#), or skip the item if you are not sure.



Gender

Many items about people on Wikidata have no [gender property](#) set.
Add a sex/gender statement "male" or "female", or skip the item if you are not sure.



Occupation

These people have no [occupation](#), but their articles suggest some.



Alma mater

These people have no [alma mater](#), but their articles suggest some.



Country of citizenship

These people have a birth place, but no country of citizenship ([P27](#)).



Disambiguation items

These items could represent [disambiguation pages](#), and should be marked as such!



Date

These people have birth and/or death date missing.



Image

These items have no image, but their Wikipedia articles do.



Commons category

These items have no Commons category, but one with the exact same name exists.



Books without author

These books have no author on Wikidata, but their Wikipedia articles might.



Statistics

See how you've done so far, how others have done, and how the gamification is doing.

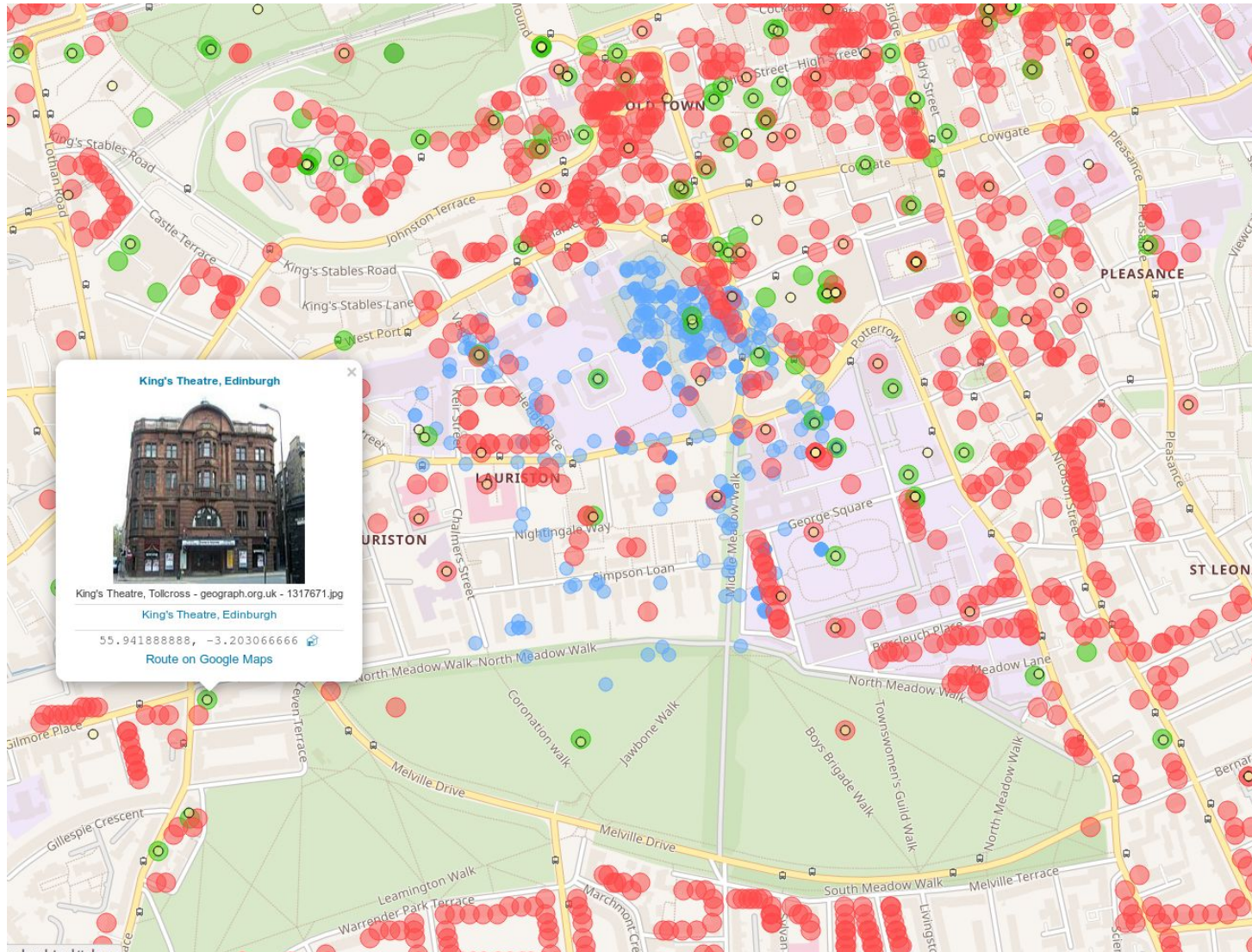


Settings

Your personal game settings, such as language preferences.

<https://tools.wmflabs.org/wikidata-game/>

WikiShootMe



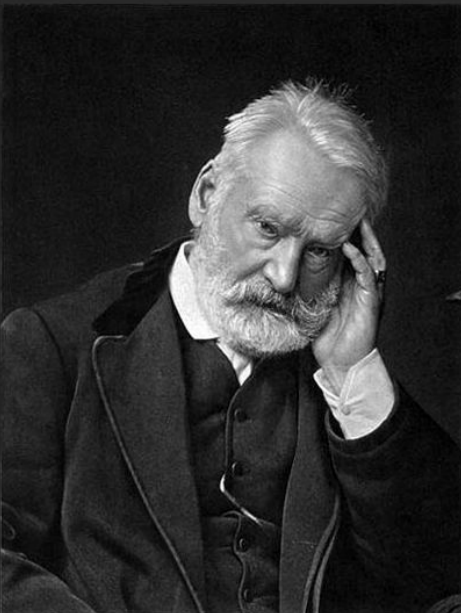
<https://tools.wmflabs.org/wikishootme>

Inventaire


Inventory

sign up login

- + add a book
- friends & groups
- browse books
- exchanges



Victor Hugo
French poet, novelist, and dramatist
1802 - 1885
country of citizenship: France
native language: French
educated at: University of Paris, Lycée Louis-le-Grand
occupation: poet, politician, playwright, novelist, draughtsperson, librettist, essayist, memoirist, writer
position held: member of parliament in France, member of the Senate of France



Les Misérables
Les Misérables (pronounced /leʁ mizə'ʁɑːb/ or /leʁ 'mizə,ʁɑːb/; French pronunciation: [le mizeʁabl(ə)]) is a French historical novel by Victor Hugo, first published in 1862, that is considered one of the greatest novels...
author: Victor Hugo
1862

[more details](#)
[add to my inventory](#)
[in your network](#)

The Hunchback of Notre Dame
The Hunchback of Notre-Dame (French: Notre-Dame de Paris) is a French Romantic/Gothic novel by Victor Hugo published in 1831. The title refers to the Notre Dame Cathedral in Paris, on which the story is ...
author: Victor Hugo
1831

[more details](#)
[add to my inventory](#)
[in your network](#)

Ninety-Three
Ninety-Three (Quatrevingt-treize) is the last novel by the French writer Victor Hugo. Published in 1874, shortly after the bloody upheaval of the Paris Commune, the novel concerns the Revolt in the Vendée and ...
author: Victor Hugo

[more details](#)
[add to my inventory](#)
[in your network](#)

Cromwell
Cromwell is a play by Victor Hugo, written in 1827. It was influenced by Hugo's literary circle, which identified itself as Romanticist and chose as a model dramatist Shakespeare instead of the Classicists Jean Racine and ...
author: Victor Hugo
1827

[more details](#)
[add to my inventory](#)
[in your network](#)

The Man Who Laughs
The Man Who Laughs (also published under the title By Order of the King) is a novel by Victor Hugo, originally published in April 1869 under the French title L'Homme qui rit. Although among Hugo's most obscure works...

[more details](#)
[add to my inventory](#)

Feedbacks

Wikidata Guessr



Leaflet | Map data © OpenStreetMap contributors

Make Your Guess

Current Round: 1/5
Last Round Score: 0
Total Score: 0
[View project on GitHub](#)
Start new game...

<http://guessr.morr.cc/>

Wikidata Query Service

```
1 #Locations of universities in Germany
2 #added before 2016-10
3 #defaultView:Map
4 SELECT ?universityLabel ?universityDescription ?website ?coord
5 WHERE {
6   ?university wdt:P31/wdt:P279* wd:Q3918 ;
7     wdt:P17 wd:Q183 ;
8     wdt:P625 ?coord .
9   OPTIONAL {
10    ?university wdt:P856 ?website
11  }
12  SERVICE wikibase:label {
13    bd:serviceParam wikibase:language "en,de" .
14  }
15 }
```

Find instance of any subclass of university with country Germany

Show coordinate location , official website

Limit

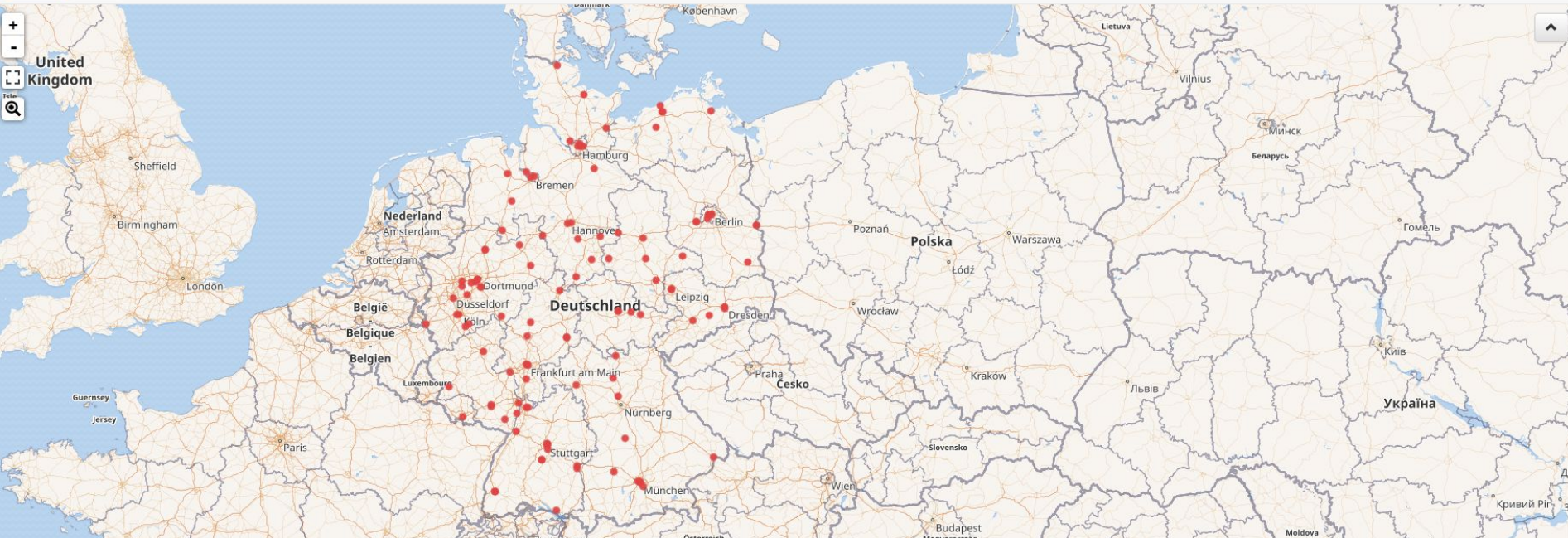
Data updated 2 seconds ago.
2:49:28 PM GMT+1, Mar 2, 2017

Data updated a few seconds ago

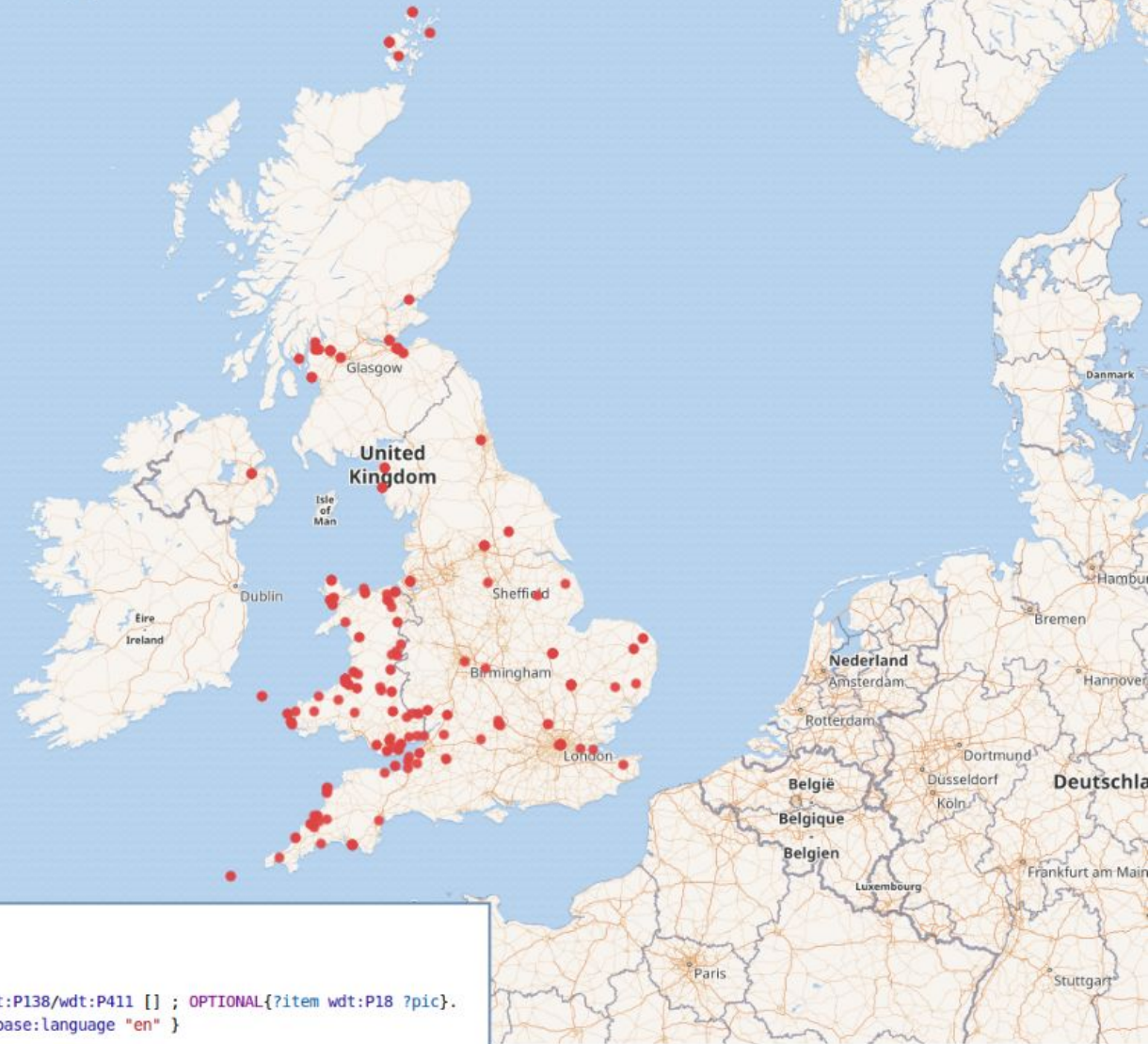
Press [CTRL-SPACE] to activate auto completion.

Run Clear 117 Results in 512 ms

Display Download Link



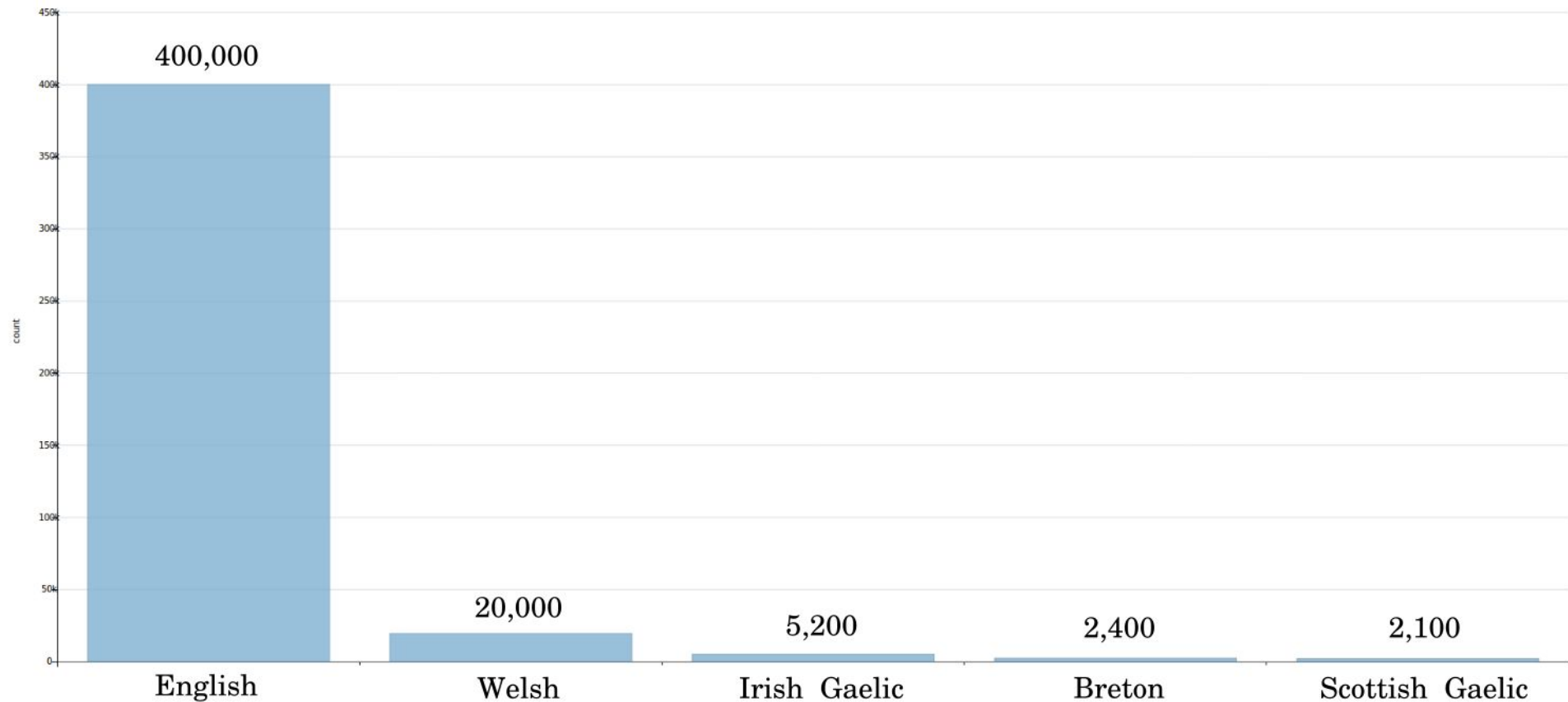
Places in UK named after a patron saint


























```
SELECT ?item ?itemLabel ?coord ?pic
WHERE
{
  ?item wdt:P17 wd:Q145 ; wdt:P625 ?coord ; wdt:P138/wdt:P411 [] ; OPTIONAL{?item wdt:P18 ?pic}.
  SERVICE wikibase:label { bd:serviceParam wikibase:language "en" }
}
```

Query: <http://tinyurl.com/y74tnokk>

Number of places in UK having labels in these languages in Wikidata

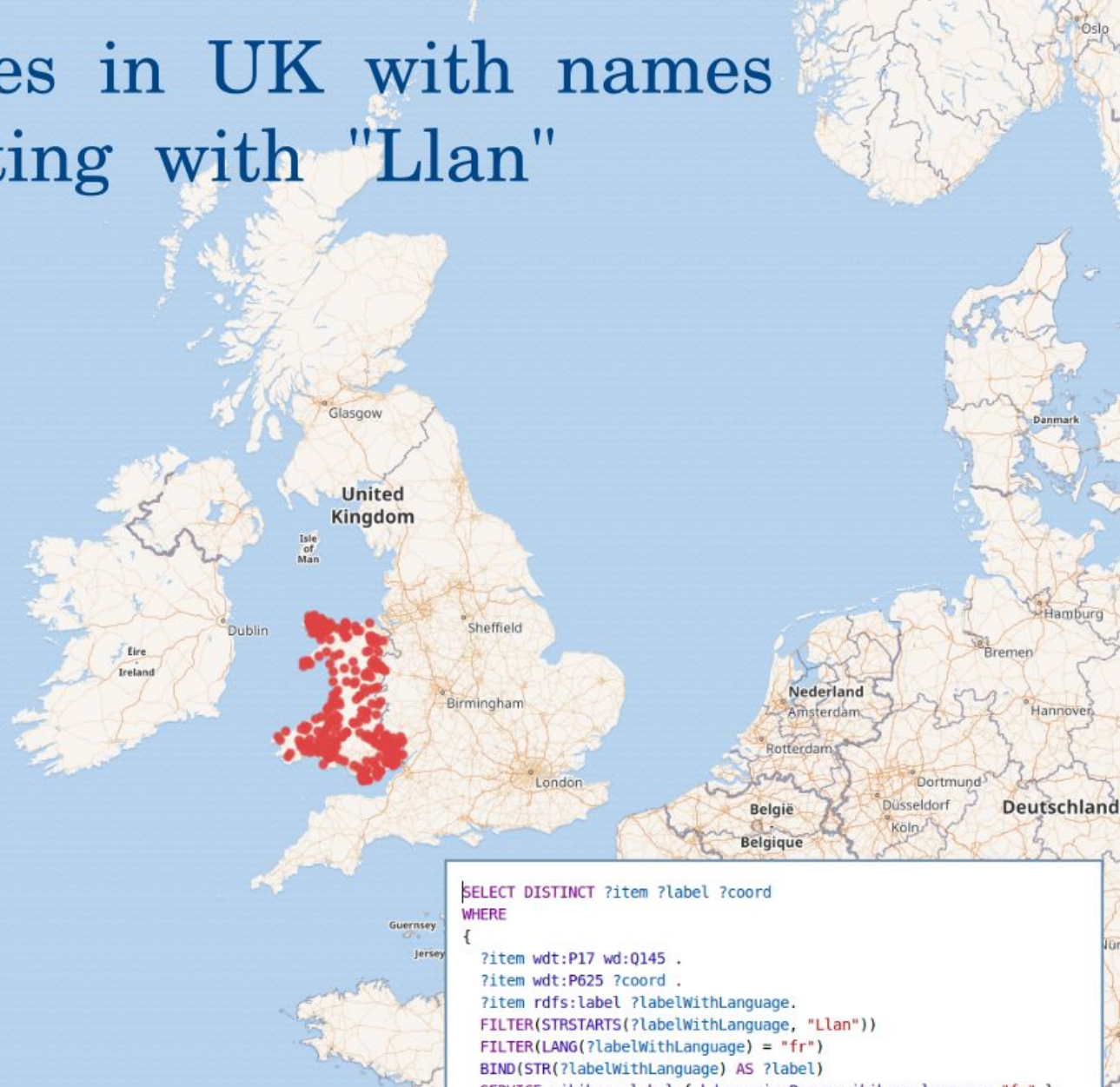


```
SELECT ?lang (COUNT(?item) AS ?count) WHERE {  
  ?item wdt:P131+ wd:Q145.  
  ?item rdfs:label ?itemLabel.  
  BIND(LANG(?itemLabel) AS ?lang)  
  FILTER (?lang in ("en", "cy", "gd", "ga", "br"))  
}  
GROUP BY ?lang
```


-
- ▷  Alban Berg
 - ▷  Alexander von Zemlinsky
 - ▷  Anton Bruckner
 - ◀  Antonio Vivaldi
 - ▷  E minor
 - ▷  G minor
 - ▷  Arnold Schoenberg
 - ▷  Franz Schubert
 - ◀  Gustav Mahler
 - ▷  A minor
 - ▷  C minor
 - ▷  C-sharp minor
 - ▷  D major
 - ▷  D minor
 - ▷  E-flat major
 - ▷  F-sharp major
 - ▷  G major
 - ▷  Johann Strauss I
 - ▷  Johannes Brahms
 - ▷  Joseph Haydn
 - ▷  Karl Goldmark
 - ▷  Ludwig van Beethoven
 - ▷  Wolfgang Amadeus Mozart

Viennese composers and their
compositions by tonality

Places in UK with names starting with "Llan"



```
SELECT DISTINCT ?item ?label ?coord
WHERE
{
  ?item wdt:P17 wd:Q145 .
  ?item wdt:P625 ?coord .
  ?item rdfs:label ?labelWithLanguage.
  FILTER(STRSTARTS(?labelWithLanguage, "Llan"))
  FILTER(LANG(?labelWithLanguage) = "fr")
  BIND(STR(?labelWithLanguage) AS ?label)
  SERVICE wikibase:label { bd:serviceParam wikibase:language "fr" }
}
```


How to start?

- Create an account on the Wikimedia projects
- Check items about things you know
- Try one of the Wikidata games
- Test the query service
- More informations: <https://www.wikidata.org/wiki/Help:Contents>
- Ask questions on IRC: #wikidata or Twitter @Wikidata

Questions?

Let's play with the Query Service

- Query Service
- Let's build a query
- Help portal