

How to create a new MaRDI Service at the MaRDI portal

A step-by-step manual

Login to the portal

Login

The screenshot shows the MaRDI Portal website. The browser address bar displays `https://portal.mardi4nfdi.de/`. The navigation bar includes the following items: **Mathematical Research Data Initiative**, `MaRDI portal durchsuchen`, `Hauptseite`, `Letzte Änderungen`, `Zufällige Seite`, `Hilfe zu MediaWiki`, `Ein neues Datenobjekt erstellen`, `Eine neue Eigenschaft erstellen`, `Create a new EntitySchema`, `Merge two Items`, and `In anderen Projekten`. A red box highlights a small user icon in the top right corner of the navigation bar. Below the navigation bar is a network graph visualization with various nodes representing researchers, including `Geoffrey Y. Qiu`, `Joost van den Handel`, `Gottfried Wilhelm Leibniz`, `Karl Deckers`, `Jan Schilt`, `Ruud Pellikaan`, `Hermann Catharina Offerhaus`, `Thomas James Penc Domina Eberle`, `Spencer`, `Hans Melissen`, `Ying Yu`, `Patrick Van gucht`, `Dirk Siersma`, `Adhemar Bultheel`, `Alice Claire Jukes`, `Robert Lohr`, `Christian Huygens`, `Markus`, `Konstantinos`, `Julian Magr`, `Valentyn Panchenko`, `Martijn van Baarsse`, `Cornelis Adriaan Lobry van Troostenburg de Bruyn`, `Lydia S. Novozhilova`, `Uffe Flarup`, `Frits Karel du Pré`, `Izaak Kolthoff`, `Robert F. Morse`, and `Trejo`. A search bar at the bottom of the graph contains the text `Search the MaRDI knowledge graph` and a `Search` button.

1. Click on the little person

About Us

Welcome to the MaRDI Portal of the NFDI.

Here, you can query our mathematical research data knowledge graph. Please keep in mind that this page is still in an early stage of development. Currently, supported data sources: DLMF, CRAN, PolyDB, swMATH (partially), zbMATH (partially).

We are supporting the open-source idea - you can find our source code repositories here. The technical documentation can be found here. Or, maybe you want to read about our **personas** - some fictional characters that embody the distinct goals, motivations, and challenges of our users. If you have further questions or recommendations, you can find ways to contact us here.

MaRDI Task Areas

Login

The screenshot shows the MaRDI Portal website. At the top, there is a navigation bar with the title "Mathematical Research Data Initiative" and a search bar. Below the navigation bar, there is a large knowledge graph with various nodes representing researchers and their connections. A search bar is located at the bottom of the graph. In the top right corner, there is a "Log in" button highlighted in a red box. The URL in the browser address bar is "https://portal.mardi4nfdi.de/wiki/Portal".

1. Click on log in

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MaRDI Task Areas

Login



Log in

Username

Password

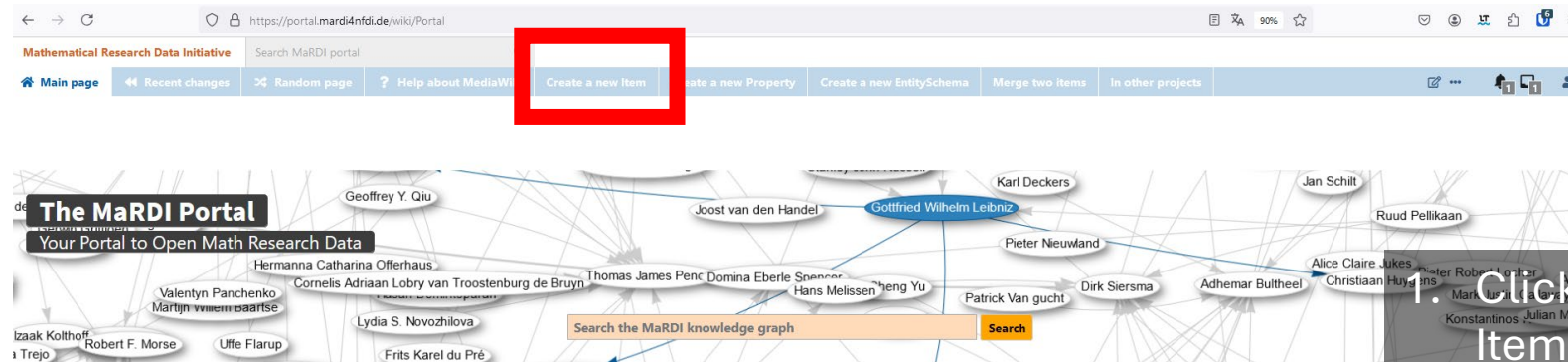
 Keep me logged in

[Help with logging in](#)
[Forgot your password?](#)

1. Enter your credentials
2. Hit log in

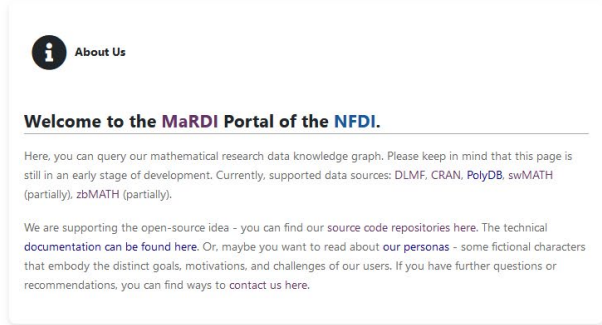
How to add a service (item)

Create a new item



The screenshot shows the MaRDI Portal interface. The browser address bar displays <https://portal.mardi.nfdi.de/wiki/Portal>. The navigation bar includes links for 'Main page', 'Recent changes', 'Random page', and 'Help about MediaWiki'. A red box highlights the 'Create a new Item' button. Below the navigation bar is a knowledge graph visualization with nodes for various mathematicians and a search bar labeled 'Search the MaRDI knowledge graph'.

1. Click on „Create a new Item“



About Us

Welcome to the MaRDI Portal of the NFDI.

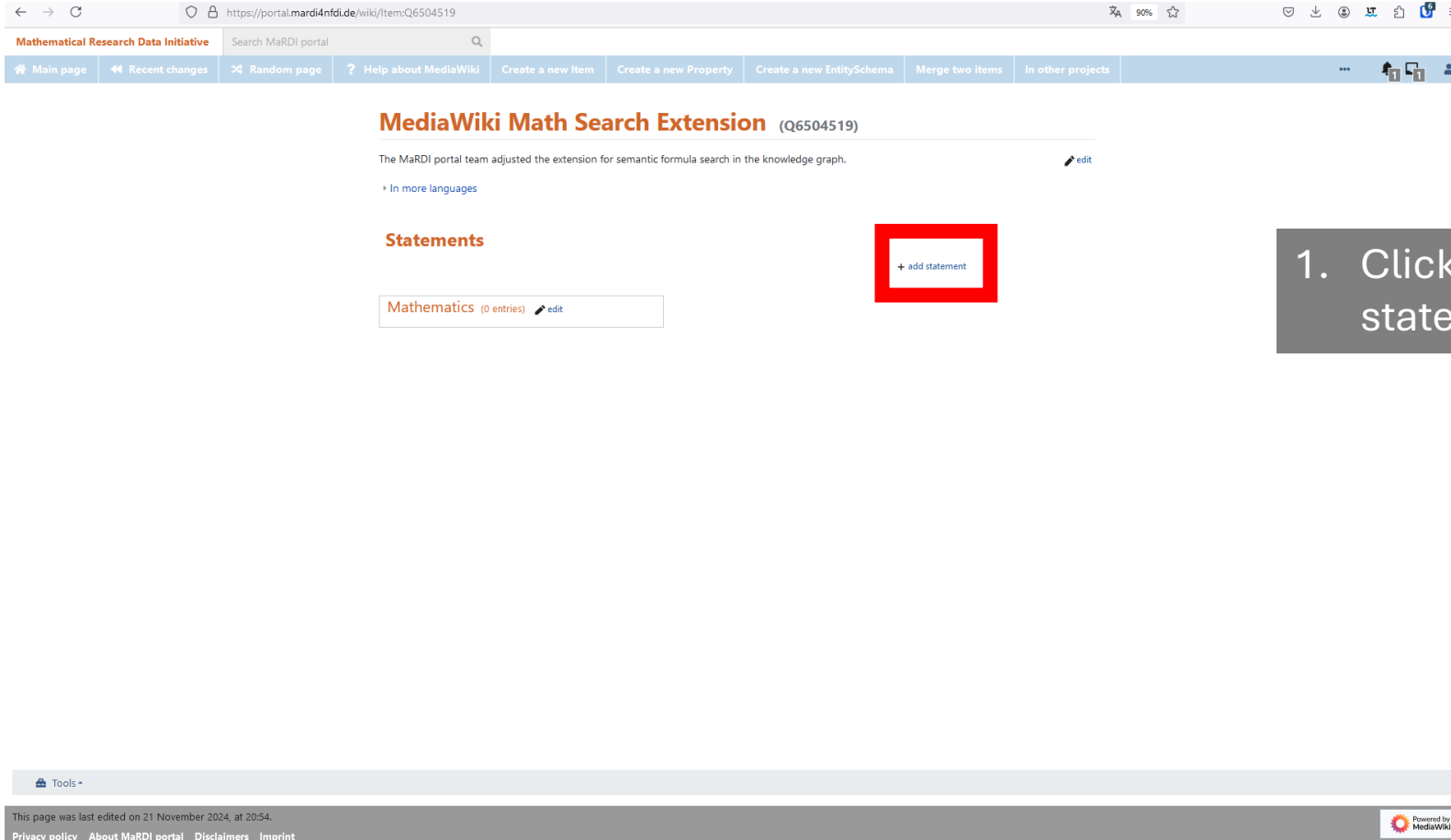
Here, you can query our mathematical research data knowledge graph. Please keep in mind that this page is still in an early stage of development. Currently, supported data sources: DLMF, CRAN, PolyDB, swMATH (partially), zbMATH (partially).

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MaRDI Task Areas

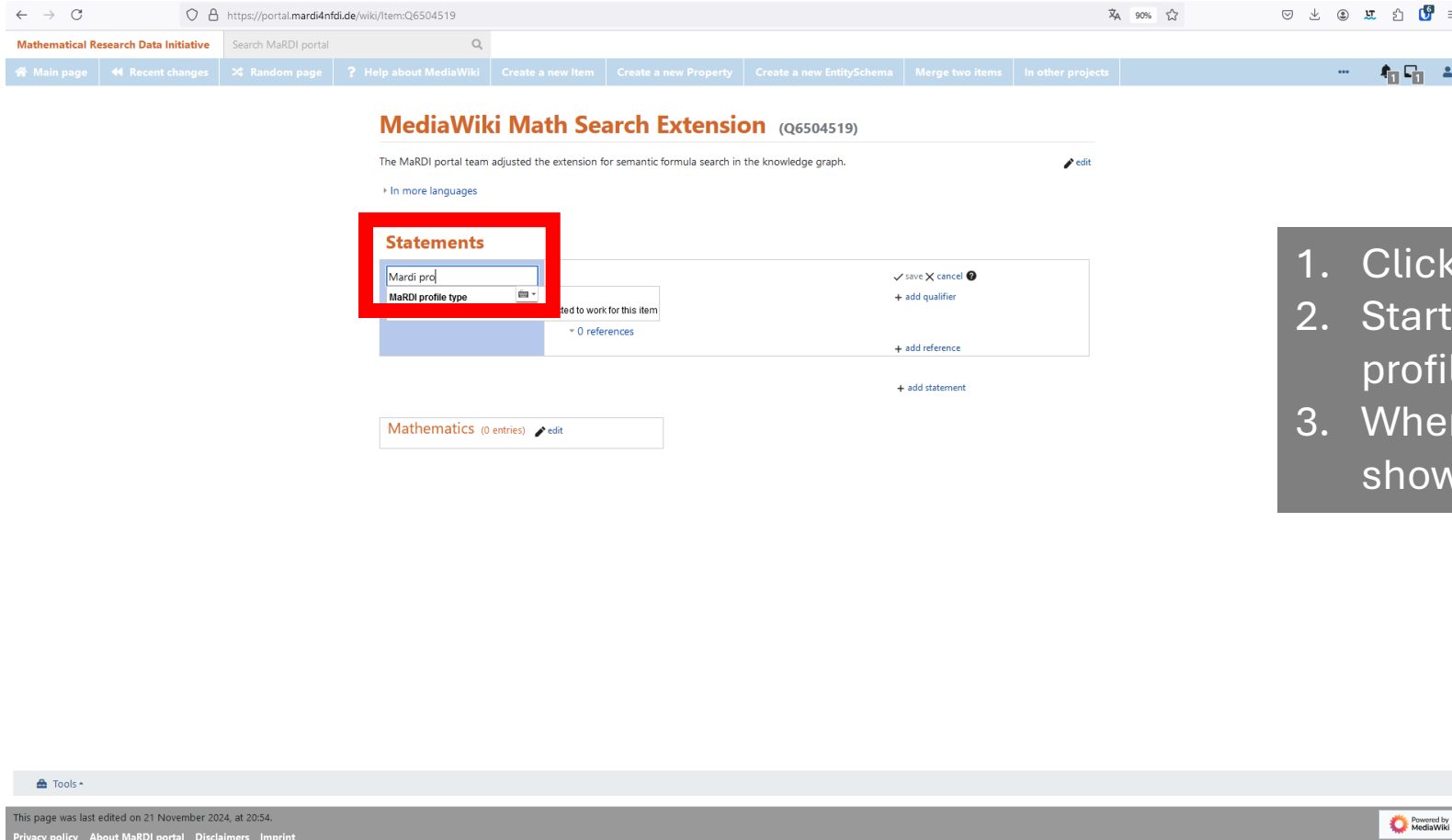
Add properties



The screenshot shows a web browser window displaying a MediaWiki page. The address bar shows the URL <https://portal.mardi4nfdi.de/wiki/Item:Q6504519>. The page title is "MediaWiki Math Search Extension (Q6504519)". Below the title, there is a description: "The MaRDI portal team adjusted the extension for semantic formula search in the knowledge graph." and a link to "In more languages". Under the "Statements" section, there is a button labeled "+ add statement" which is highlighted with a red square. Below this, there is a list of statements, currently showing "Mathematics (0 entries)". At the bottom of the page, there is a footer with the text "This page was last edited on 21 November 2024, at 20:54." and a "Powered by MediaWiki" logo.

1. Click on „add statement“

Add properties



Mathematical Research Data Initiative Search MaRDI portal

MediaWiki Math Search Extension (Q6504519)

The MaRDI portal team adjusted the extension for semantic formula search in the knowledge graph. [edit](#)

[In more languages](#)

Statements

Mardi pro [save](#) [cancel](#)

MaRDI profile type

[+ add qualifier](#)

[+ add reference](#)

[+ add statement](#)

Mathematics (0 entries) [edit](#)

Tools

This page was last edited on 21 November 2024, at 20:54.

Powered by MediaWiki

1. Click into the input field
2. Start typing „MaRDI profile type“
3. When the correct entry is shown, click on it.

Add properties

The screenshot shows a MediaWiki page for the item 'MediaWiki Math Search Extension' (Q6504519). The page content includes a description, a 'Statements' section, and a 'Mathematics' section. A dropdown menu is open for the 'MaRDI profile type' property, with the option 'MaRDI service profile' highlighted in red. The page footer contains a 'Tools' menu, a timestamp, and a 'Powered by MediaWiki' logo.

Mathematical Research Data Initiative Search MaRDI portal

Main page Recent changes Random page Help about MediaWiki Create a new Item Create a new Property Create a new EntitySchema Merge two Items In other projects

MediaWiki Math Search Extension (Q6504519)

The MaRDI portal team adjusted the extension for semantic formula search in the knowledge graph. [edit](#)

[In more languages](#)

Statements

MaRDI profile type [cancel](#) [+ add reference](#)

MaRDI service profile [+ add statement](#)

0 references

Mathematics (0 entries) [edit](#)

Tools

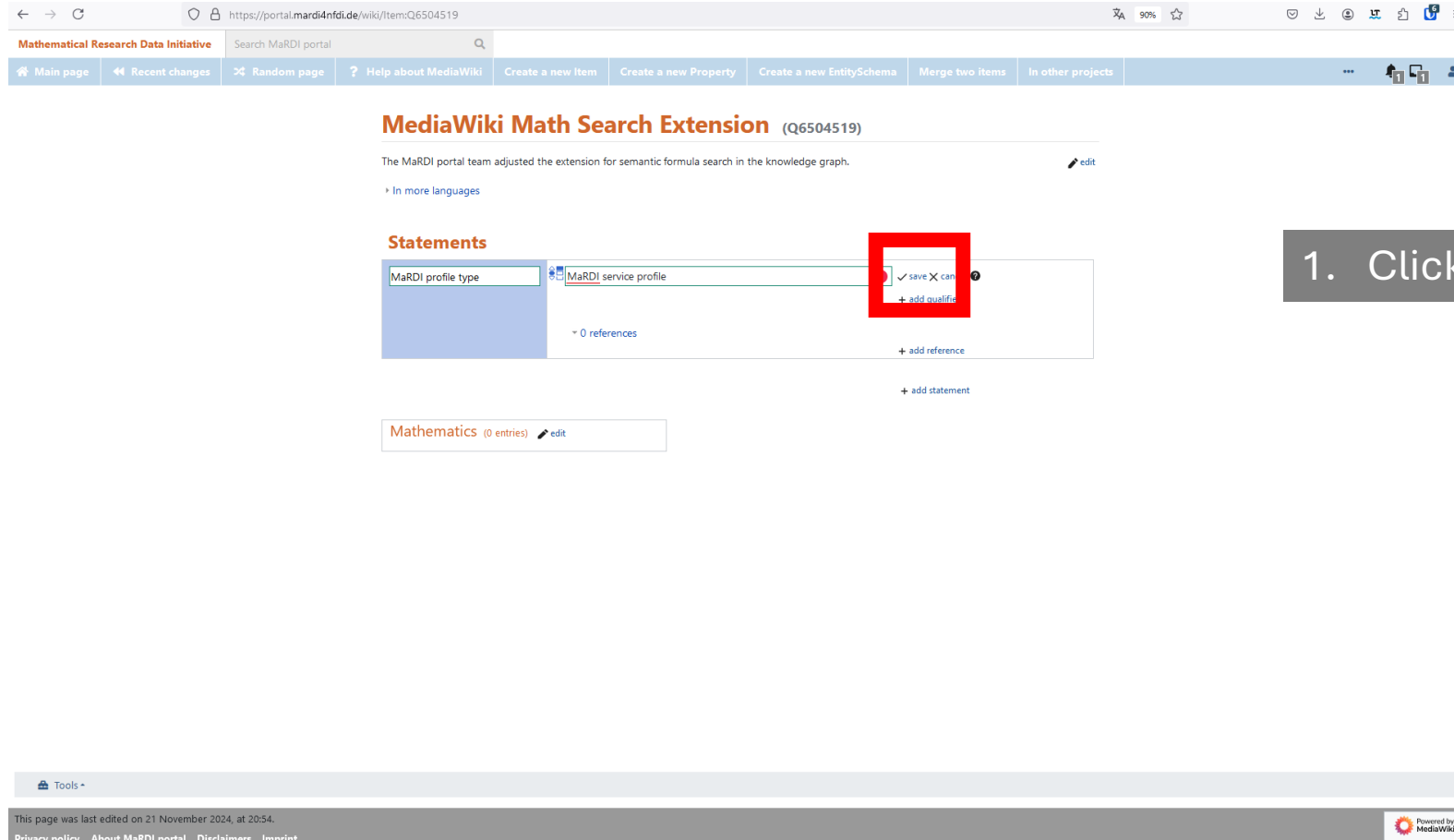
This page was last edited on 21 November 2024, at 20:54.

<https://portal.mardi4nfdi.de/wiki/Item:Q6503324> [claimers](#) [imprint](#)

Powered by MediaWiki

1. Click on the next input field
2. Start typing in „MaRDI service profile“
3. When the correct entry is shown, click on it.

Add properties



The screenshot shows a MediaWiki page for the item 'MediaWiki Math Search Extension' (Q6504519). The page includes a navigation bar with links like 'Main page', 'Recent changes', and 'Random page'. Below the title, there is a description: 'The MaRDI portal team adjusted the extension for semantic formula search in the knowledge graph.' and a link to 'In more languages'. The 'Statements' section is visible, showing a table with columns for 'MaRDI profile type' and 'MaRDI service profile'. A red box highlights the 'save' button in the statement editor. Below the statements, there is a link to 'Mathematics (0 entries)'. At the bottom, there is a 'Tools' menu and a footer with the text 'This page was last edited on 21 November 2024, at 20:54.' and a 'Powered by MediaWiki' logo.

Mathematical Research Data Initiative Search MaRDI portal

Main page Recent changes Random page Help about MediaWiki Create a new Item Create a new Property Create a new EntitySchema Merge two Items In other projects

MediaWiki Math Search Extension (Q6504519)

The MaRDI portal team adjusted the extension for semantic formula search in the knowledge graph. [edit](#)

[In more languages](#)

Statements

MaRDI profile type	MaRDI service profile
	save X cancel + add qualify
	+ add reference
	+ add statement

0 references

[Mathematics \(0 entries\)](#) [edit](#)

Tools

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Powered by MediaWiki

1. Click on „Save“

Add properties

The screenshot shows a MediaWiki page for the item 'MediaWiki Math Search Extension' (Q6504519). The page content includes a description, a 'Statements' section with a table, and a 'Mathematics' category.

MediaWiki Math Search Extension (Q6504519)

The MaRDI portal team adjusted the extension for semantic formula search in the knowledge graph. [edit](#)

[In more languages](#)

Statements

MaRDI profile type	MaRDI service profile edit
	+ 0 references
	+ add reference
	+ add value
	+ add statement

Mathematics (0 entries) [edit](#)

Tools

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It should look like this now.

Add properties

The screenshot shows a MediaWiki page for the item 'MediaWiki Math Search Extension' (Q6504519). The page title is 'MediaWiki Math Search Extension (Q6504519)'. Below the title, there is a description: 'The MaRDI portal team adjusted the extension for semantic formula search in the knowledge graph.' and a link to 'In more languages'. The 'Statements' section is visible, showing a table with one statement: 'MaRDI profile type' with the value 'MaRDI service profile'. Below this table, there is a '+ add statement' button highlighted with a red box. The page also includes a navigation bar at the top with links like 'Main page', 'Recent changes', 'Random page', and 'Help about MediaWiki'. At the bottom, there is a footer with the text 'This page was last edited on 21 November 2024, at 20:54.' and a 'Powered by MediaWiki' logo.

- We repeat this for more properties.
- Always start with clicking on „add statement“

Property „description“

The screenshot shows a browser window with the URL <https://portal.mardi4nfdi.de/wiki/Item:Q6504519>. The page title is "MediaWiki Math Search Extension (Q6504519)". The main content area shows a statement for the property "description" with the value: "The MaRDI portal team adjusted the extension for semantic formula search in the knowledge graph. The extension is used by several wikis dealing with mathematical formulae." This text is enclosed in a red rectangular box. Below the statement, there are buttons for "+ add reference" and "+ add statement". At the bottom of the page, there is a footer with the text "This page was last edited on 21 November 2024, at 20:54." and a "Powered by MediaWiki" logo.

The text for the description property should be a little longer and describe the service.

Line breaks are not supported.

Property „maintained by“

The screenshot shows a MediaWiki page for the item 'MediaWiki Math Search Extension' (Q6504519). The page content includes a summary, a 'Statements' section with three rows, and a 'Mathematics' category box. The third row in the 'Statements' section is highlighted with a red box, showing the property 'maintained by' with the value 'TA5'. The browser address bar shows the URL 'https://portal.mardi4nfdi.de/wiki/Item:Q6504519'. The page footer indicates it was last edited on 21 November 2024 at 20:54.

Enter the TA where the service is mainly maintained.

Property „MaRDI Service Category“

Mathematical Research Data Initiative Search MaRDI portal

Statements

MaRDI profile type MaRDI service profile

description The MaRDI portal team adjusted the extension for semantic formula search in the knowledge graph. The extension is used by several wikis dealing with mathematical formulae.

maintained by TAS

MaRDI Service Category Tool/Application

Mathematics (0 entries)

Tools -

This page was last edited on 21 November 2024, at 20:54.

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The service category can be one of:

- Web application
- Tool/Application
- Support/Consulting
- Database
- API
- Workflow/Pipeline
- Curated Collections
- Outreach

Property „version type“

The screenshot shows a MediaWiki page for the item 'Mathematics' (Q6504519) on the 'Mathematical Research Data Initiative' portal. The page displays several properties:

- description**: The MaRDI portal team adjusted the extension for semantic formula search in the knowledge graph. The extension is used by several wikis dealing with mathematical formulae.
- maintained by**: TAS
- MaRDI Service Category**: Tool/Application
- version type**: stable version (highlighted with a red box)

At the bottom of the page, there is a 'Tools' section and a footer indicating the page was last edited on 21 November 2024 at 20:54. The footer also includes links for 'Privacy policy', 'About MaRDI portal', 'Disclaimers', and 'Imprint', along with a 'Powered by MediaWiki' logo.

The version type can be one of:

- beta version
- release candidate version
- stable version

Property „official website“

The screenshot shows a MediaWiki page for the item 'Q6504519' on the 'Mathematical Research Data Initiative' portal. The page displays several properties with their values and edit options:

- maintained by**: TAS
- MaRDI Service Category**: Tool/Application
- version type**: stable version
- official website**: <http://www.formulaeengine.com/>

The 'official website' property is highlighted with a red box, and the URL input field is also highlighted. The page includes a navigation bar with options like 'Main page', 'Recent changes', and 'Random page'. At the bottom, there is a footer with the text 'This page was last edited on 21 November 2024, at 20:54.' and a 'Powered by MediaWiki' logo.

Enter an URL where one can use this service.

These 6 properties should exist

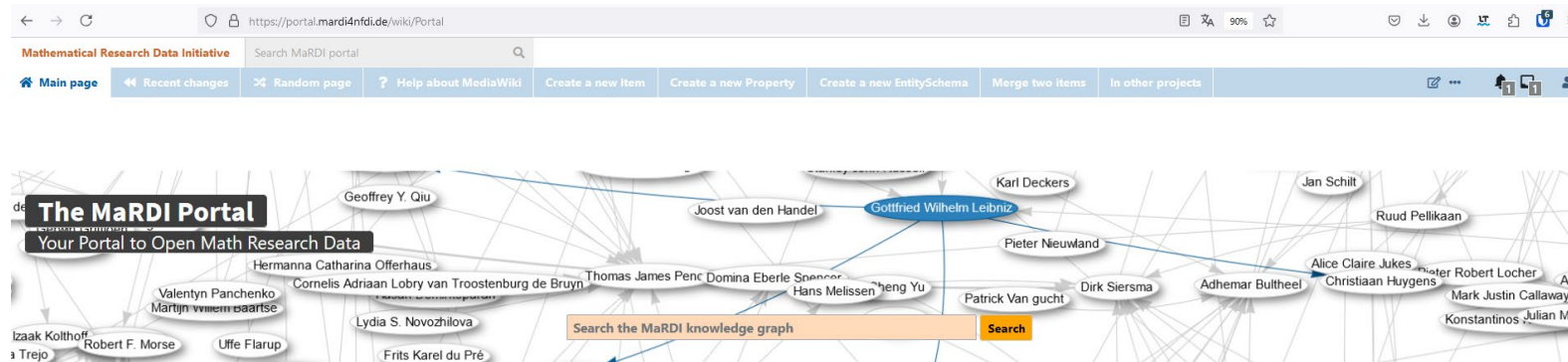
The screenshot shows a MediaWiki page for the item `https://portal.mardi4nfdi.de/wiki/Item:Q6504519`. The page title is "Mathematical Research Data Initiative". The navigation bar includes links for "Main page", "Recent changes", "Random page", "Help about MediaWiki", "Create a new Item", "Create a new Property", "Create a new EntitySchema", "Merge two items", and "In other projects".

The "Statements" section lists the following properties:

- MaRDI profile type**: MaRDI service profile. 0 references.
- description**: The MaRDI portal team adjusted the extension for semantic formula search in the knowledge graph. The extension is used by several wikis dealing with mathematical formulae. 0 references.
- maintained by**: TAS. 0 references.
- MaRDI Service Category**: Tool/Application. 0 references.
- version type**: stable version. 0 references.
- official website**: <http://www.formulaeengine.com/>.

A red box highlights the first six properties listed above.

Go back to the main page



i About Us

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MaRDI Task Areas

Scroll down on the main page

The screenshot shows the main page of the Mathematical Research Data Initiative (MaRDI) portal. The page features a navigation bar at the top with a search box and several utility links. Below the navigation bar, there are seven statistics cards arranged in a grid, each with an icon, a numerical value, and a label. At the bottom of the statistics section, there is a 'More Statistics' button with an expandable arrow. The footer contains a 'Tools' menu, a page edit timestamp, and a 'Powered by MediaWiki' logo.

Mathematical Research Data Initiative

Search MaRDI portal

Main page Recent changes Random page Help about MediaWiki Create a new Item Create a new Property Create a new EntitySchema Merge two items In other projects

632823130 Triples	1265471 Humans	44542 swMATH Items
4842505 zbMath Open Articles	757126 arXiv Preprints	5496 OpenML Datasets
4 Services		

More Statistics [\[Expand\]](#)

Tools

This page was last edited on 21 November 2024, at 16:42.

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Click on the number next to „Services“

The screenshot shows the MaRDI portal homepage. The page features a navigation bar at the top with the title "Mathematical Research Data Initiative" and a search bar. Below the navigation bar, there are several statistics cards arranged in a grid. The "Services" card, located at the bottom of the grid, has the number "4" highlighted with a red square. Below the grid is a "More Statistics" button with an expand icon. At the bottom of the page, there is a footer with a "Tools" menu, a copyright notice, and a "Powered by MediaWiki" logo.

Category	Count
Triples	632823130
Humans	1265471
swMATH Items	44542
zbMath Open Articles	4842505
arXiv Preprints	757126
OpenML Datasets	5496
Services	4

More Statistics [\[Expand\]](#)

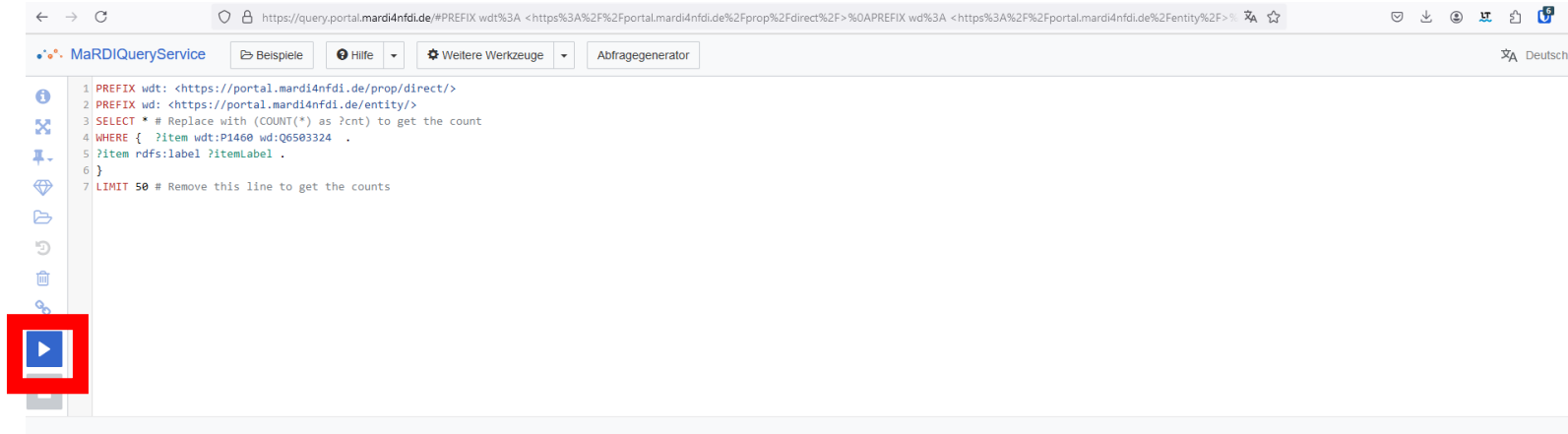
Tools -

This page was last edited on 21 November 2024, at 16:42.
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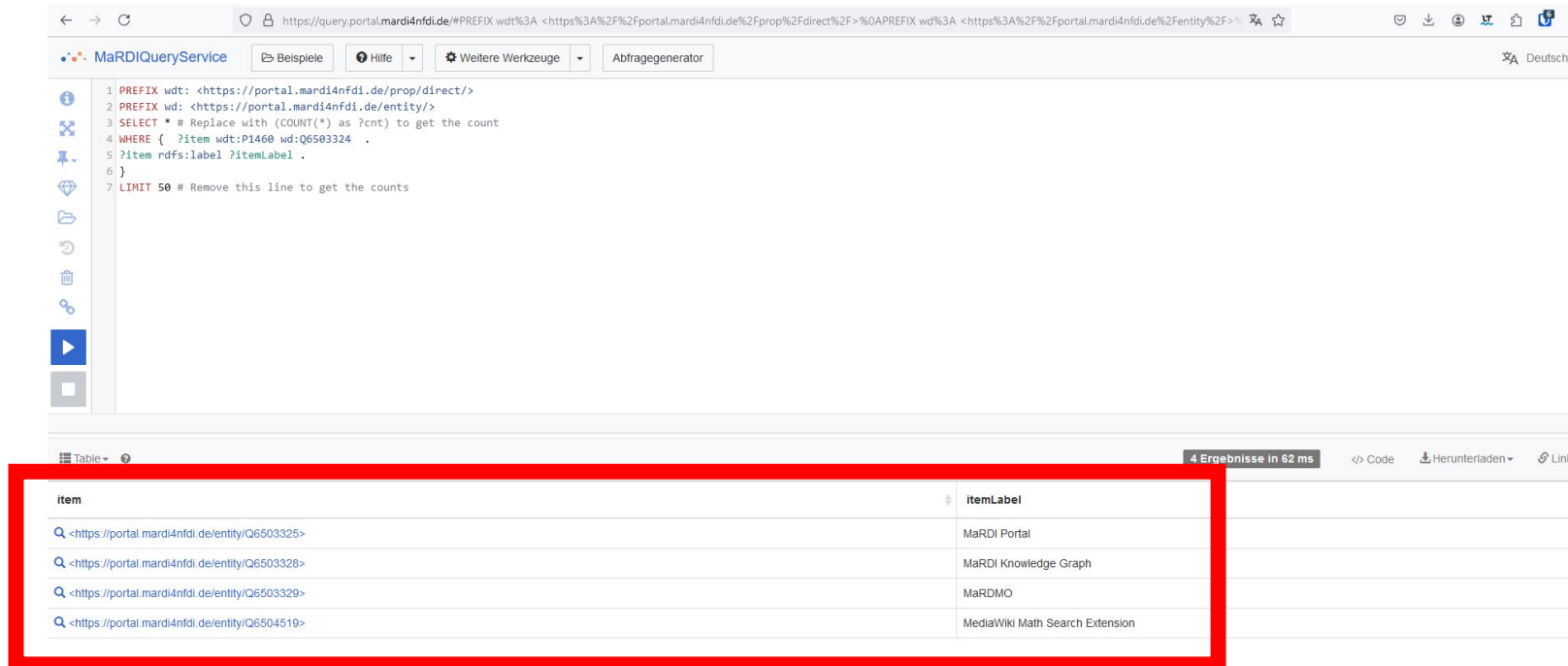
Powered by MediaWiki

There might be a different number by now.

At the MaRDIQueryService, click on „play“



Your new service should appear in this list



The screenshot shows the MaRDIQueryService web interface. The top navigation bar includes the service name, a search icon, and a language dropdown set to 'Deutsch'. Below the navigation bar is a SPARQL query editor with the following query:

```
1 PREFIX wdt: <https://portal.mardi4nfdi.de/prop/direct/>
2 PREFIX wd: <https://portal.mardi4nfdi.de/entity/>
3 SELECT * # Replace with (COUNT(*) as ?cnt) to get the count
4 WHERE { ?item wdt:P1460 wd:Q6503324 .
5 ?item rdfs:label ?itemLabel .
6 }
7 LIMIT 50 # Remove this line to get the counts
```

The results table below the query shows 4 results in 62 ms. The table has two columns: 'Item' and 'ItemLabel'. The results are:

Item	ItemLabel
Q6503325	MaRDI Portal
Q6503328	MaRDI Knowledge Graph
Q6503329	MaRDMO
Q6504519	MediaWiki Math Search Extension