

How to apply for LUMI resources

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What you need to apply for LUMI grants?

- active PLGrid **account** (https://portal.plgrid.pl)
- active affiliation (polish academic/scientific unit employee type)
- active LUMI service in PLGrid portal
- register with Puhuri using MyAccessID



Puhuri AAI uses MyAccessID platform as an integration point for all IdPs. MyAccessID is published in eduGAIN as a Service Provider and will consume IdPs available in eduGAIN through the metadata exchange mechanism. MyAccessID can on request integrate IdPs in the case they are not available in eduGAIN.

The user should register with PUHURI portal and sign in with

MyAccessID.

https://puhuri-portal.neic.no/login/





- Enter plgrid in the login field and select PLGrid IdP
- Enter PLGrid login details on the next page







- Ensure that the entered data is correct and mark the required fields
- You will receive a notification

upon successful registration

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data is correct Plds In order to access LUMI resources via Puhuri, you will need to register MyAccess		rces via Puhuri, you will need to register MyAccessID identity.					1
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	E-mail*	2	•				
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You have been	successfully	registered				- 1	
You are now a member of PUHUR						- T	



Types of LUMI grants

test access (benchmark/development) regular access





PL 🔼 -

Make innovative research with us!



A predefined grant containing specific resources available in the PLGrid infrastructure.

Apply



PLGrid pilot grant

Pilot grant to test user needs for the use of PLGrid Infrastructure.

LUMI

GRID PLGrid Portal -

Computing grants implemented on the LUMI supercomputer. Applications accepted according to the competition schedule. The call for applications takes place twice a year.

Apply



LUMI test access

Apply

Computing grants implemented on the LUMI supercomputer. Applications accepted according to the competition schedule. The call for applications takes place twice a year.







LUMI test access



As part of the test access, the user can use the LUMI CPU resources for 1 month (30 days). Test access provides 10,000 CPU hours that can be used.



- duration: 1 month (30 days)
- resources: 10 000 CPU and 1 000 GPU hours
- applying and managing: <u>Helpdesk PLGrid</u>
- applications can be submitted on an ongoing basis
- continuous support



Test grant summary report:

- A brief summary of the tools and applications used as part of the test grant
- Problems encountered with the operation and/or performance of the tested applications
- Summary of unresolved application issues/other problems
- Brief characteristics of the results obtained, taking into account CPU and GPU resources (if applicable)
- Summary of performed software scalability tests with particular emphasis on GPU partition nodes (if applicable)
- Do the obtained results allow to apply for a proper grant?





LUMI regular access

LUMI

Computing grants implemented on the LUMI supercomputer. Applications accepted according to the competition schedule. The call for applications takes place twice a year.

Apply

- duration: 1 year
- max resources:
 - 20 000 000 CPU
 - 1 000 000 GPU
 - 10 000 000 TBh
- applying: PLGrid portal
- call for applications: 2 times a year

- applications only in English language
- evaluation process: each application is reviewed by 2 scientific reviewers and 2 technical reviewers



Applying for regular LUMI grant - basic info

The first step - complete the basic information for the application like:

- title
- acronym
- team
- affiliation etc.

Title *		
The title should be a concise; usually one-sentence desc research topic, containing specific features of the studie Must be at least 10 characters long .		
Grant ID *		
Dilu Unique short name of your grant (4 to 20 characters, or letters and numbers, no spaces).	nly lower	case
Unique short name of your grant (4 to 20 characters, or	nly lower	case
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Unique short name of your grant (4 to 20 characters, or letters and numbers, no spaces). Research team * Please select research team PLGrid resources are granted within the scientific team member will have access to them. You can only select a	- all its act	tive

Cancel

Save and continue



Applying for LUMI grant - resources

Resources

LUMILUMI

LUMI is a unique European initiative related to supercomputers, involving ten European countries and the EuroHPC Joint Und.

Second step request for specific resources.

CPU - Draft	200 000 h	前 Delete	Sedit resources parameters
	200 000 h		
CPU - Draft			
		Delete	Bdit resources parameters
APPLIED FOR FOLLOWING RESOURCES			
CPU hours	4 000 000 h		
TORAGE - Draft			
Capacity (Terabyte per hour) *			
2 000 000	TB/h		
Cancel	te allocation		



Applying for LUMI grant - grant details

Grant details

This is the most extensive section	of the	application.	Use
must provide information about:			

Grant start date *		Duration in months *	
14.04.2023	=	12	~
The application must be reviewed and evaluate	d before the grant is allocated. The abo	e date will be considered as the actual sta	int date of the grant. In case of prolonged

Keywords *

negotiations, the grant will be launched as soon as the application is accepted.

Enter up to 5 keywords. Research purpose *

- research purpose/public abstract
- usage description
- scientific & economic readiness
- data management plan
- references & prior experience
- field of science and keywords

latforms that you will use, including application code names (together with exact version), programming languages, libraries, and other software used. Describe also analielization and scalability aspects, including parallel programming system used (e.g., MPI, PGAS, "embarrassingly parallel"). If possible, provide data for your application analiel performance, speedup and scalability.	Jsage de	escri	iption *			
ustify the requested computational and storage resources. Provide basis on which the requested resources were estimated. Describe the computational techniques and historms that you will use, including application code names together with exact version), programming languages, libraries, and other software used. Describe also analielization and catability appendix including parallel programming system used (e.g., MPI, PCAS, "embarrassingly paraller"). If possible, provide data for your application analiel performance, speedup and scalability. Field of Science * Please select field o science	В	I	-9-	S	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	0
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Fields of Science according to the OECD "Revised Field of Science and Technology (FOS) classification".	arallelizationarallelizationarallelizationarallelizationarallelipe	that y ation a erform Scien	you will u and scala mance, sp nce *	use, incluc ability aspe peedup an	uding application code names (together with exact version), programming languages, libraries, and other software used. D peets, including parallel programming system used (e.g., MPL, PGAS, "embarrassingly parallel"). If possible, provide data for and scalability.	Describe also

Describe theoretical and computational methods you plan to apply to achieve your aims and objectives. Compare these to established state-of-the-art within the field .



Applying for LUMI grant - project, publications & summary

In the next steps, you can add information about realted projects under which your research are co-financed and expected publications. Last but not least - draft summary.

Save changes

If research purpose of this grant is supported by any funding programme (e.g. NCN, NCBR, MNiSW) please add this information.



My research is not supported by any funding programme.

Declared publications

Expected publication in international journal

Expected publication in other journal

Expected conference presentation

Expected PhD dissertation

Expected Master and/or Undergraduate Thesis

The above publications will include the following acknowledgments to PLGrid infrastructure:

"We gratefully acknowledge Poland's high-performance computing infrastructure PLGrid (HPC Centers:) for providing computer facilitie support within computational grant no. PLL/2023/4/016317"

Comment

Required when publication is not declared



LUMI call timeline





Reporting LUMI grants

After the end of the grant, it is necessary to complete the report:

- short description of the work
- description of the results obtained
- list of submitted and published scientific articles, patents,
- information on scientific grants under which the work was carried out

Acknowledgements formula :

We acknowledge Poland's high-performance computing infrastructure PLGrid for awarding this project access to the LUMI supercomputer, owned by the EuroHPC Joint Undertaking, hosted by CSC (Finland) and the LUMI consortium through grant no. PLL/2023/4/016319.



LUMI call - where to find information?

Each LUMI call is announced:

- on the ACK Cyfronet AGH website (<u>https://www.cyfronet.pl/lumi</u>)
- Portal PLGrid
- as a newsletter / mailing information to PLGrid users
- ...



Thank you for your attention



LUMI is a unique European initiative related to supercomputers, involving ten European countries and the EuroHPC Joint Undertaking (EuroHPC JU) investing in a common system, which is expected to accelerate research and increase the competitiveness of European solutions.

The peak performance of LUMI is 552 petaflops. ACK Cyfronet AGH represents Poland in the LUMI consortium. Thanks to the financial contribution of the state and the cooperation of our specialists, Polish scientists will be able to use the supercomputer resources for conducting large-scale computation-based research, parallel processing of enormous datasets, multidimensional analysis, and also utilizing artificial intelligence.

LUMI documentation - https://docs.lumi-supercomputer.eu/