GlueX (and CLAS) Shift Scheduling Procedures and Software

Reinhard Schumacher

(a.k.a. "gluexshiftbot")

Hall A SBS Meeting, 10-4-2023

Shifts Scheduling for Long Run Periods

- ## Hall B (CLAS/ HPS / CLAS12) since ~2000
  - Creator: Dan Protopopescu: CLAS-NOTE 2011-006
  - Maintainer: Bryan McKinnon (Glasgow)

- ## Hall D (GlueX) since 2014
  - Maintainer: Reinhard Schumacher (Carnegie Mellon)

All Users' Interface

Privacy and Security Notice

Experimental Hall D

search

print version

Select : Display Two-Week Schedule - Authenticate Yourself & View Your Options - FAQ - Accelerator Ops

GlueX Shifts

Current shift status

Date : 10-03-2023
Time : 13:17 UTC
Leader : none
Worker : none
RC:
PDL:

** **Required Training** **

** **Email Addresses** **

Select Display Options:

Start:
28 Jun 2022

End:
30 Dec 2022

Narrow search by name:

or by institute:

or by accelerator schedule:

Choose to view:
- schedule
- statistics
- PDLs
- RCs

List Selection

or Show Default View

You are logged in as

Reinhard Schumacher

Options menu / Log out

More resources:

Shift schedule from Jun 28, 2022 to Dec 30, 2022

Date	Leader Early Riser (04:00-10:00)	Worker Early Riser (04:00-10:00)	Leader Day (10:00-16:00)	Worker Day (10:00-16:00)	Leader Swing (16:00-22:00)	Worker Swing (16:00-22:00)	Leader Owl (22:00-04:00)	Worker Owl (22:00-04:00)	Accelerator Schedule / Hall D Program	Run Coordinator
28-Jun-2022 Tuesday	Edmundo Barriga	Annika Thiel	Justin Stevens	Bo Yu	Churamani Paudel	Moskov Amaryan	Lawrence Ng	Xiang Zhou	CPP NPP	Naomi Jarvis
29-Jun-2022 Wednesday	Edmundo Barriga	Annika Thiel	Justin Stevens	Bo Yu	Churamani Paudel	Moskov Amaryan	Lawrence Ng	Jane Zhang	CPP NPP	Benedikt Zihlmann
30-Jun-2022 Thursday	Edmundo Barriga	Annika Thiel	Justin Stevens	Bo Yu	Churamani Paudel	Moskov Amaryan	Lawrence Ng	Jane Zhang	CPP NPP	Benedikt Zihlmann
1-Jul-2022 Friday	Edmundo Barriga	Annika Thiel	Justin Stevens	Bo Yu	Churamani Paudel	Moskov Amaryan	Lawrence Ng	Jane Zhang	CPP NPP	Benedikt Zihlmann
2-Jul-2022 Saturday	Mariana Khachatryan	Tyler Viducic	Reinhard Schumacher	Ashot Gasparian	Alexander Austregesilo	Michael McCaughan	Andrew Hurley	Jane Zhang	CPP NPP	Benedikt Zihlmann
3-Jul-2022 Sunday	Mariana Khachatryan	Tyler Viducic	Reinhard Schumacher	Ashot Gasparian	Alexander Austregesilo	Michael McCaughan	Andrew Hurley	Jane Zhang	CPP NPP	Benedikt Zihlmann
4-Jul-2022 Monday	Mariana Khachatryan	Tyler Viducic	Reinhard Schumacher	Ashot Gasparian	Alexander Austregesilo	Michael McCaughan	Andrew Hurley	Jane Zhang	CPP NPP	Benedikt Zihlmann
5-Jul-2022 Tuesday	Mariana Khachatryan	Tyler Viducic	Reinhard Schumacher	Ashot Gasparian	Alexander Austregesilo	Michael McCaughan	Andrew Hurley	Jane Zhang	CPP NPP	Benedikt Zihlmann
6-Jul-2022 Wednesday	Phoebe Sharp	Guoyi Hou	Alison Laduke	Torri Jeske	Dave Mack	Jesse Hernandez	Rupesh Dotel	Michael Dugger	CPP NPP	Ilya Larin
7-Jul-2022 Thursday	Phoebe Sharp	Guoyi Hou	Alison Laduke	Torri Jeske	Dave Mack	Jesse Hernandez	Rupesh Dotel	Michael Dugger	CPP NPP	Ilya Larin
8-Jul-2022 Friday	Phoebe Sharp	Guoyi Hou	Alison Laduke	Torri Jeske	Dave Mack	Jesse Hernandez	Rupesh Dotel	Michael Dugger	CPP NPP	Ilya Larin
9-Jul-2022 Saturday	Phoebe Sharp	Guoyi Hou	Alison Laduke	Torri Jeske	Dave Mack	Jesse Hernandez	Rupesh Dotel	Michael Dugger	CPP NPP	Ilya Larin
10-Jul-2022 Sunday	Michael Dugger	Jane Zhang	Matthew Shepherd	Ron Pedroni	Arshak Asaturyan	Jesse Hernandez	Alexander Ostrovidov	Mark Dalton	CPP NPP	Ilya Larin
11-Jul-2022 Monday	Michael Dugger	Jane Zhang	Matthew Shepherd	Ron Pedroni	Arshak Asaturyan	Jesse Hernandez	Alexander Ostrovidov	Mark Dalton	CPP NPP	Ilya Larin

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User Experience

- Institutions assigned shifts in blocks of 4 days
  - Each Institutional Representative (IR) maintains roster of eligible shift takers
    - ✓Members
    - ✓Non-member students
- Users sign up for shifts given their allocations
  - Shifts can be bilaterally "traded" at any time with anyone
    - ✓Trading mechanism is "automatic" via friendly customized emails
- Shift takers get email reminders prior to shifts
  - IR gets persistent emails re any vacant slots

Trade Offer Example

Joerg Reinhold   📁 Inbox –...MU (rs6e)   February 18, 2023 at 8:20 PM
New GlueX shift trade offer from Joerg Reinhold   **Details**
To: nvarun@jlab.org, Cc: reinhold@jlab.org, zisis@jlab.org,
Reply-To: reinhold@jlab.org

Dear Varun Neelamana,

Would you like to accept the trade offer described below ?

Trade your Worker Day on Feb 27, 2023 with Worker Day on Mar 15, 2023
Trade your Worker Day on Feb 28, 2023 with Worker Day on Mar 16, 2023
Trade your Worker Day on Mar 01, 2023 with Worker Day on Mar 17, 2023
Trade your Worker Day on Mar 02, 2023 with Worker Day on Mar 18, 2023

Your help would be greatly appreciated.
To view and either accept or refuse this offer please log in via the GlueX shifts
interface

 https://www.jlab.org/Hall-D/shifts/index.php?display=admin

and choose "View trade offers" from the menu (topmost option).
There is no need to contact me beforehand.

This message has been generated on my behalf by the shift scheduler.

Best regards,
Joerg Reinhold

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When we seek our shifts to trade,
An email offer will be made.
It should all be automatic,
And not in the least traumatic.
If it's not acting as it ought,
Send a message to GlueXshiftbot.

Experimental Hall D

🖶 print version

Select : Display Two-Week Schedule - Authenticate Yourself & View Your Options - FAQ - Accelerator Ops

GlueX Shifts

Current shift status

Date : 07-27-2022
Time : 17:16 EDT
Leader : Curtis Meyer
Worker : William Imoehl
RC: David Lawrence
PDL: Simon Taylor

** Required Training **

** Email Addresses **

Select Display Options:

Start:
27 Jul 2022
End:
30 Dec 2023
Narrow search by name:

or by institute:

or by accelerator schedule:

Choose to view:
○ schedule
○ statistics
○ PDLs
○ RCs

List Selection

or Show Default View

You are logged in as

Reinhard Schumacher

Options menu / Log out

Shift schedule from Jul 27, 2022 to Dec 30, 2023

Date	Leader Early Riser (04:00-10:00)	Worker Early Riser (04:00-10:00)	Leader Day (10:00-16:00)	Worker Day (10:00-16:00)	Leader Swing (16:00-22:00)	Worker Swing (16:00-22:00)	Leader Owl (22:00-04:00)	Worker Owl (22:00-04:00)	Accelerator Schedule / Hall D Program	Run Coordinator
27-Jul-2022 Wednesday	Jason Barlow	Susan Schadmand	Lydia Lorenti	Saheli Rakshit	Curtis Meyer	William Imoehl	Andrew Hurley	Ahmed Foda	CPP NPP	David Lawrence
28-Jul-2022 Thursday	Jason Barlow	Susan Schadmand	Lydia Lorenti	Saheli Rakshit	Curtis Meyer	William Imoehl	Andrew Hurley	Ahmed Foda	CPP NPP	David Lawrence
29-Jul-2022 Friday	Jason Barlow	Susan Schadmand	Lydia Lorenti	Saheli Rakshit	Curtis Meyer	William Imoehl	Andrew Hurley	Ahmed Foda	CPP NPP	David Lawrence
30-Jul-2022 Saturday	Mariana Khachatryan	Yannic Wolf	Alison Laduke	Jiawei Guo	Jason Barlow	Saheli Rakshit	Lubomir Pentchev	Jamie Fitches	CPP NPP	David Lawrence
31-Jul-2022 Sunday	Mariana Khachatryan	Yannic Wolf	Alison Laduke	Jiawei Guo	Jason Barlow	Saheli Rakshit	Lubomir Pentchev	Jamie Fitches	CPP NPP	David Lawrence
1-Aug-2022 Monday	Mariana Khachatryan	Yannic Wolf	Alison Laduke	Jiawei Guo	Jason Barlow	Saheli Rakshit	Lubomir Pentchev	Jamie Fitches	CPP NPP	David Lawrence
2-Aug-2022 Tuesday	Mariana Khachatryan	Yannic Wolf	Alison Laduke	Jiawei Guo	Jason Barlow	Saheli Rakshit	Lubomir Pentchev	Jamie Fitches	CPP NPP	David Lawrence
3-Aug-2022 Wednesday	Justin Stevens	Jane Zhang	Eugene Chudakov	Ilya Larin	Ilya Larin	Ron Pedroni	YERE	Jamie Fitches	CPP NPP	Alexandre Deur
4-Aug-2022 Thursday	Justin Stevens	Jane Zhang	Eugene Chudakov	Ilya Larin	Ilya Larin	Ron Pedroni	YERE	Jamie Fitches	CPP NPP	Alexandre Deur
5-Aug-2022 Friday	Justin Stevens	Jane Zhang	Eugene Chudakov	Ilya Larin	Ilya Larin	Ron Pedroni	YERE	Jamie Fitches	CPP NPP	Alexandre Deur
6-Aug-2022 Saturday	Justin Stevens	Karthik Suresh	Eugene Chudakov	Ilya Larin	Ilya Larin	Ron Pedroni	YERE	Jamie Fitches	CPP NPP	Alexandre Deur
7-Aug-2022 Sunday	Andrew Smith	Yannic Wolf	Malte Albrecht	Tolga Erbora	Simon Taylor	Varun Neelamana	Zachary Baldwin	Peter Pauli	CPP NPP	Alexandre Deur
8-Aug-2022 Monday	Andrew Smith	Yannic Wolf	Malte Albrecht	Tolga Erbora	Simon Taylor	Varun Neelamana	Zachary Baldwin	Peter Pauli	CPP NPP	Alexandre Deur
9-Aug-2022 Tuesday	Andrew Smith	Yannic Wolf	Malte Albrecht	Tolga Erbora	Simon Taylor	Varun Neelamana	Zachary Baldwin	Peter Pauli	CPP NPP	Alexandre Deur
10-Aug-2022 Wednesday	Andrew Smith	Yannic Wolf	Malte Albrecht	Tolga Erbora	Simon Taylor	Varun Neelamana	Zachary Baldwin	Peter Pauli	CPP NPP	Joerg Reinhold
11-Aug-2022										

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Various Search Options – e.g. names

Experimental Hall D

print version

Select : Display Two-Week Schedule - Authenticate Yourself & View Your Options - FAQ - Accelerator Ops

Shift schedule from Oct 3, 2022 to Dec 30, 2024 for Matthew Shepherd

GlueX Shifts

Current shift status

Date : **10-03-2023**
Time : **13:38 UTC**
Leader : none
Worker : none
RC:
PDL:

** Required Training **

** Email Addresses **

Select Display Options:

Start:
3 | Oct | 2022

End:
30 | Dec | 2024

Narrow search by name:
Matthew Shepherd

or by institute:

or by accelerator schedule:

Choose to view:
- ○ schedule
- statistics
- PDLs
- RCs

List Selection

or Show Default View

You are logged in as

Reinhard Schumacher

Options menu / Log out

More resources:

Date	Leader Early Riser (04:00-10:00)	Worker Early Riser (04:00-10:00)	Leader Day (10:00-16:00)	Worker Day (10:00-16:00)	Leader Swing (16:00-22:00)	Worker Swing (16:00-22:00)	Leader Owl (22:00-04:00)	Worker Owl (22:00-04:00)	Accelerator Schedule / Hall D Program	Run Coordinator
9-Nov-2022 Wednesday	Karthik Suresh	Runqiu Ma	**Matthew Shepherd**	Zisis Papandreou	Ilya Larin	Ron Pedroni	Simon Taylor	Igor Strakovsky	PrimeX II	Mariana Khachatryan
10-Nov-2022 Thursday	Karthik Suresh	Runqiu Ma	**Matthew Shepherd**	Zisis Papandreou	Ilya Larin	Ron Pedroni	Simon Taylor	Igor Strakovsky	PrimeX II	Mariana Khachatryan
11-Nov-2022 Friday	Justin Stevens	Runqiu Ma	**Matthew Shepherd**	Tolga Erbora	Churamani Paudel	Tim Black	Arshak Asaturyan	Jane Zhang	PrimeX II	Mariana Khachatryan
12-Nov-2022 Saturday	Justin Stevens	Runqiu Ma	**Matthew Shepherd**	Tolga Erbora	Churamani Paudel	Tim Black	Arshak Asaturyan	Jane Zhang	PrimeX II	Mariana Khachatryan
17-Dec-2022 Saturday	**Matthew Shepherd**	Runqiu Ma	Liping Gan	Tim Black	Nilanga Wickramaarachchi	Igor Strakovsky	Olga Cortes Becerra	Michael McCracken	PrimeX II	Joerg Reinhold
18-Dec-2022 Sunday	**Matthew Shepherd**	Runqiu Ma	Liping Gan	Tim Black	Nilanga Wickramaarachchi	Keigo Mizutani	Olga Cortes Becerra	Michael McCracken	PrimeX II	Joerg Reinhold
19-Dec-2022 Monday	**Matthew Shepherd**	Runqiu Ma	Liping Gan	Tim Black	Nilanga Wickramaarachchi	Torri Jeske	Olga Cortes Becerra	Michael McCracken	Down at 7:00 AM	Joerg Reinhold
20-Dec-2022 Tuesday	**Matthew Shepherd**	Runqiu Ma	Liping Gan	Tim Black	Nilanga Wickramaarachchi	Torri Jeske	Olga Cortes Becerra	Michael McCracken	**Down**	Joerg Reinhold
25-Feb-2023 Saturday	Phoebe Sharp	Vanik Kakoyan	**Matthew Shepherd**	David Hornidge	Peter Hurck	Roman Dzhygadlo	Andrew Smith	Susan Schadmand	GlueX II	Simon Taylor
26-Feb-2023 Sunday	Phoebe Sharp	Vanik Kakoyan	**Matthew Shepherd**	David Hornidge	Peter Hurck	Roman Dzhygadlo	Andrew Smith	Susan Schadmand	GlueX II	Simon Taylor

Found a total of 10 shifts spread over 10 days.

User info for Matthew Shepherd:

Individual's Interface

Experimental Hall D

GlueX Shifts

Current shift status

Date : **10-03-2023**
Time : **13:13 UTC**
Leader : **none**
Worker : **none**
RC:
PDL:

You are logged in as

Reinhard Schumacher

Options menu / Log out

More resources:

- Required training
- List of Institutional Contacts
& Utilities

Select : Display Two-Week Schedule - Authenticate Yourself & View Your Options - FAQ - Accelerator Ops

Hi, Reinhard Schumacher! You are now logged in.

Your session automatically expires after two hours of inactivity.

User info for Reinhard Schumacher:

Full name : Reinhard Schumacher
Affiliation : CMU (Carnegie Mellon University)
Email : reinhard@jlab.org
Qualification : Expert

Institutional contact for CMU (Carnegie Mellon University)

- **Reinhard Schumacher (reinhard@jlab.org)**

There are 10 members of CMU registered for Hall D shifts:

- Alison Laduke (aladuke@jlab.org)
- Curtis Meyer (cmeyer@jlab.org)
- Hao Li (haoli@jlab.org)
- Jiawei Guo (gjwei@jlab.org)
- Michael McCracken (mmccracken@jlab.org)
- Naomi Jarvis (njarvis@jlab.org)
- Nathaniel Hoffman (nhoffman@jlab.org)
- Reinhard Schumacher (reinhard@jlab.org)
- William Imoehl (wimoehl@jlab.org)
- Zachary Baldwin (zbaldwin@jlab.org)

Location of CMU: Domestic (USA)

Sister institute: *(No shifts debt or credit)*

Remarks:

Membership DB data:

- Postal address: Department of Physics, Carnegie Mellon University, 5000 Forbes Ave., Pittsburgh, PA, USA 15213
- Present GlueX membership status of CMU: **Standard**

Corrections
    If you find this information inaccurate, please contact Reinhard Schumacher.

Institutional Rep.'s Interface

As institutional contact, you can use this interface to:

View all the shifts currently assigned to you	Show my shifts
Change shifts passwords for anyone from '**CMU**'	Change passwords
Add or remove members from the **CMU** shift taker's list	Manage members
Assign names to shifts allocated to your institute	Assign shifts ☐ Involve sister institute
Trade your shifts with someone else	Trade shifts
Swap shifts assigned to **CMU**	Swap shifts ❓

In addition, you have access to the following superuser functions:

Reset shifts password for anyone in GLUEX	Recover passwords
Assign a Physics Division Liaison	Assign PDLs
Assign a Run Coordinator	Assign RCs
Edit the accelerator and Hall D experimental program	Experimental program
Generate shift schedule for the next period	Generate new schedule

and a sessions log ⓘ

All the shift rules are implemented in the software. If an option you were looking for is not shown or is greyed-out in the menu have no such permission, or that the access period has expired. Please review the instructions.

After you make changes, you can click here 📧 to notify everyone in your group.
Please do not forget to log out when you have finished (your session will expire in 1 hour and 59 minutes) ...

« Back to schedule view

Institutional Rep.'s Interface

Experimental Hall D

search

print version

Select : Display Two-Week Schedule - Authenticate Yourself & View Your Options - FAQ - Accelerator Ops

GlueX Shifts

Current shift status

Date : **10-03-2023**
Time : **13:15 UTC**
Leader : **none**
Worker : **none**
RC:
PDL:

You are logged in as

Reinhard Schumacher

Options menu / Log out

More resources:

- Required training
- List of Institutional Contacts
& Utilities

This interface should be used to manage shift personnel. You can **add** or **delete** a name, or **modify** a row by choosing the corresponding option from the 'Action' column of the table. Adding people here does **not** make them members of the GlueX Collaboration. To change one's collaboration membership, you must contact the GlueX Executive Committee. Read more here ...

- Promoting a person from Worker to Leader requires approval by the Physics Division Liasion (PDL). Please contact the PDL to discuss the qualifications of the person to be promoted.

List of GlueX Shift takers from CMU (10 people):

MID	Full name	Email	Position	Level	Qual	Remarks	Action
CMU001	Curtis Meyer	cmeyer@jlab.org	User	Leader	OK		None
CMU002	Reinhard Schumacher	reinhard@jlab.org	Contact	Leader	OK	aka Gluexshiftbot	None
CMU003	Naomi Jarvis	njarvis@jlab.org	User	Leader	OK		None
CMU004	Hao Li	haoli@jlab.org	User	Leader	OK		None
CMU005	Michael McCracken	mmccracken@jlab.org	User	Worker	OK		None
CMU006	Jiawei Guo	gjwei@jlab.org	User	Worker	OK	added 5-13-22	None
CMU007	Zachary Baldwin	zbaldwin@jlab.org	User	Leader	OK	added 1-15-20	None
CMU008	Nathaniel Hoffman	nhoffman@jlab.org	User	Leader	OK	added 6-2-20	None
CMU009	Alison Laduke	aladuke@jlab.org	User	Leader	OK	added 6-2-20	None
CMU010	William Imoehl	wimoehl@jlab.org	User	Leader	OK	added 7-5-22	None
CMU011			User	Worker	OK		Ignore

Please double-check your changes before commiting them.

[Commit changes] [Reset Form]

or Cancel

« Back to schedule view

Timing of setup

- -6 weeks
  - IR's bring rosters up to date
  - Shift blocks are randomly assigned to all institutions
  - Foreign institutions begin "Swaps" of blocks unilaterally (to arrange travel)
- -3 weeks
  - Foreign swap period ends
  - Domestic institutions begin "Swaps" of blocks with Local institutions (to arrange travel)
- -2 weeks
  - Swap periods end
  - Bilateral TRADING begins among
  - Filling of names begins/continues
- 0 week
  - RUN STARTS

Comparisons / Contrasts

- Hall B
  - 3 x 8-hour x 2 = 6 shift persons per day

- Hall D
  - 4 x 6-hour x 2 = 8 shift persons per day
  - Example people counting:
    - ✓ 50 "Leaders", 61 "Workers" → 111 people
    - ✓ Average load per member ~ 9.5 shifts
    - ✓ Institutions decide how to deploy their people-power
  - More travel costs for collaborators

Who can best act as the organizer?

- Senior person: not a student or postdoc
- Comfortable with PHP programing
- Comfortable with mySQL database management (e.g. Navicat)
- About a week of work per run period to set it up
  - It's mostly automated and runs for weeks without trouble
  - cron jobs mostly keep things moving...