

# Hall C Users Group Business Meeting

Hall A/C Collaboration Meeting July 16-17 2020

- Hall C Users Board make up
- Author list for Commissioning experiments
- SHMS NIM paper status
- Onsite access during MEDCON-5

# Hall C Users Group Webpage

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## EXPERIMENTAL HALL C

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## EXPERIMENTAL HALL C

### Meetings

- [Hall C Users Meeting, January 28-29, 2020 \(Registration\)](#)
- [Joint Hall A & C Summer Collaboration Meeting, June 27-28, 2019](#)
- [Hall C Users Meeting, January 28-29, 2019](#)
- [Joint Hall A & C Data Analysis Workshop, June 25-26, 2018](#)
- [Joint Hall A & C Summer Collaboration Meeting, June 21-22, 2018](#)
- [Previous Meetings](#)

### Physics

- [Approved 12GeV Experiments, All 12 GeV](#)
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# Hall C Users Group Webpage

## User Board

Rectangular Snip

The SHMS-HMS User Group was formally started at the 2009 Hall C summer workshop when the initial user board was appointed by the Hall C leader. Members were appointed with staggered terms. As the terms of the initial board expire, elections are held by the user group to replace board members.

## Upcoming Board 2019—2020

Board Member	Email	Institution	Term expires
Narbe Kalantarians	narbe@jlab.org	VUU	9/1/2020
Joerg Reinhold	reinhold@jlab.org	FIU	9/1/2020
Holly Szumila-Vance	hszumila@jlab.org	JLab	9/1/2021
Dipangkar Dutta	ddutta@jlab.org	MSU	9/1/2021
David Hamilton	dhamilto@jlab.org	Glasgow	9/1/2022
Simona Malace	simona@jlab.org	JLab	9/1/2022

Rotating out this year

→ Elections were held at the beginning of July – 49 of you voted, thank you!

→ **The new Hall C Board members are: Tanja Horn and Arun Tadepli**

→ They will begin their term on Sep 1<sup>st</sup> 2020 to replace Narbe and Joerg

# Commissioning Experiments Authorship List

## Author list for commissioning experiments:

"12 shifts during the commissioning time period qualifies the individual to be published with Color Transparency (E12-06-107), F2 (E12-10-002), EMC, $x > 1$  (E12-10-008, E12-06-105), deuteron electrodisintegration (E12-10-003) AND SIDIS (E12-09-017), CSV (E12-09-002) and kaonLT (E12-09-011)."

- Spreadsheet at: <https://hallcweb.jlab.org/elogs/Commissioning+Experiments+Analysis/> (entry 39)
- Blue = RCs
- Columns indicate those who served 12+ shifts or 8 shifts (E12-06-107, E12-10-002, E12-10-008, and E12-10-003), or 4 shifts for one experiment (commented to the right which experiment they took the shifts on)
- Individual experiments can add whoever they want additionally for their specific papers
- Commissioning experiments need to add those who were instrumental in commissioning
- Individual Collaborations can decide how to order names

**contact Holly for questions/comments**

	A	B	C	D	E	F	G
1	Name	Institution	Number of Shifts	All comm+SIDIS start	Comm only	Single Exp	Single Exp name
2	Daniel Abrams	University of Virginia, Charlottesville, VA	8	FALSE	TRUE	FALSE	
3	Zafar Ahmed	University of Regina, Regina, SK , Canada	8	FALSE	TRUE	FALSE	
4	Bashar Aljawrneh	North Carolina Ag. and Tech. St. Univ. Greensboro, NC	8	FALSE	TRUE	FALSE	
5	Sheren Alsalmi	Kent State University, Kent, OH	8	FALSE	TRUE	FALSE	
6	Ryan Ambrose	University of Regina, Regina, SK , Canada	19	TRUE	FALSE	FALSE	
7	Darko Androic	University of Zagreb, Zagreb, Croatia	5	FALSE	FALSE	TRUE	ct
8	Fernando Araiza Gonzalez	Stony Brook, State University of New York	14	TRUE	FALSE	FALSE	
9	Whitney Armstrong	Temple University Philadelphia PA	8	FALSE	TRUE	FALSE	

.....

55	Abishek Karki	Mississippi State University, Miss. State, MS	25	TRUE	FALSE	FALSE	
56	Cynthia (Thia) Keppel	Jefferson Lab	6	FALSE	FALSE	TRUE	
57	Achyut Khanal	Florida International University	8	FALSE	TRUE	FALSE	
58	Paul King	Ohio University, Athens, OH	8	FALSE	TRUE	FALSE	
59	Ed Kinney	University of Colorado, Boulder, CO	9	FALSE	TRUE	FALSE	
60	Ho San Ko	Institut de Physique Nucleaire, Orsay, France	5	FALSE	FALSE	TRUE	ct
61	Michael Kohl	Hampton University , Hampton, VA	3	FALSE	FALSE	FALSE	
62	Nathaniel Lashley-Colthirst	Hampton University , Hampton, VA	9	FALSE	TRUE	FALSE	
63	Shujie Li	University of New Hampshire, Durham, NH	8	FALSE	TRUE	FALSE	
64	Wenliang Li	The College of William and Mary	10	FALSE	TRUE	FALSE	
65	Dave Mack	Jefferson Lab	23	TRUE	FALSE	FALSE	
66	Simona Malace	Jefferson Lab	68	TRUE	FALSE	FALSE	
67	Pete Markowitz	Florida International University	1	FALSE	FALSE	FALSE	
68	John Matter	University of Virginia, Charlottesville, VA	13	TRUE	FALSE	FALSE	
69	Dave Meekins	Jefferson Lab	1	FALSE	FALSE	FALSE	

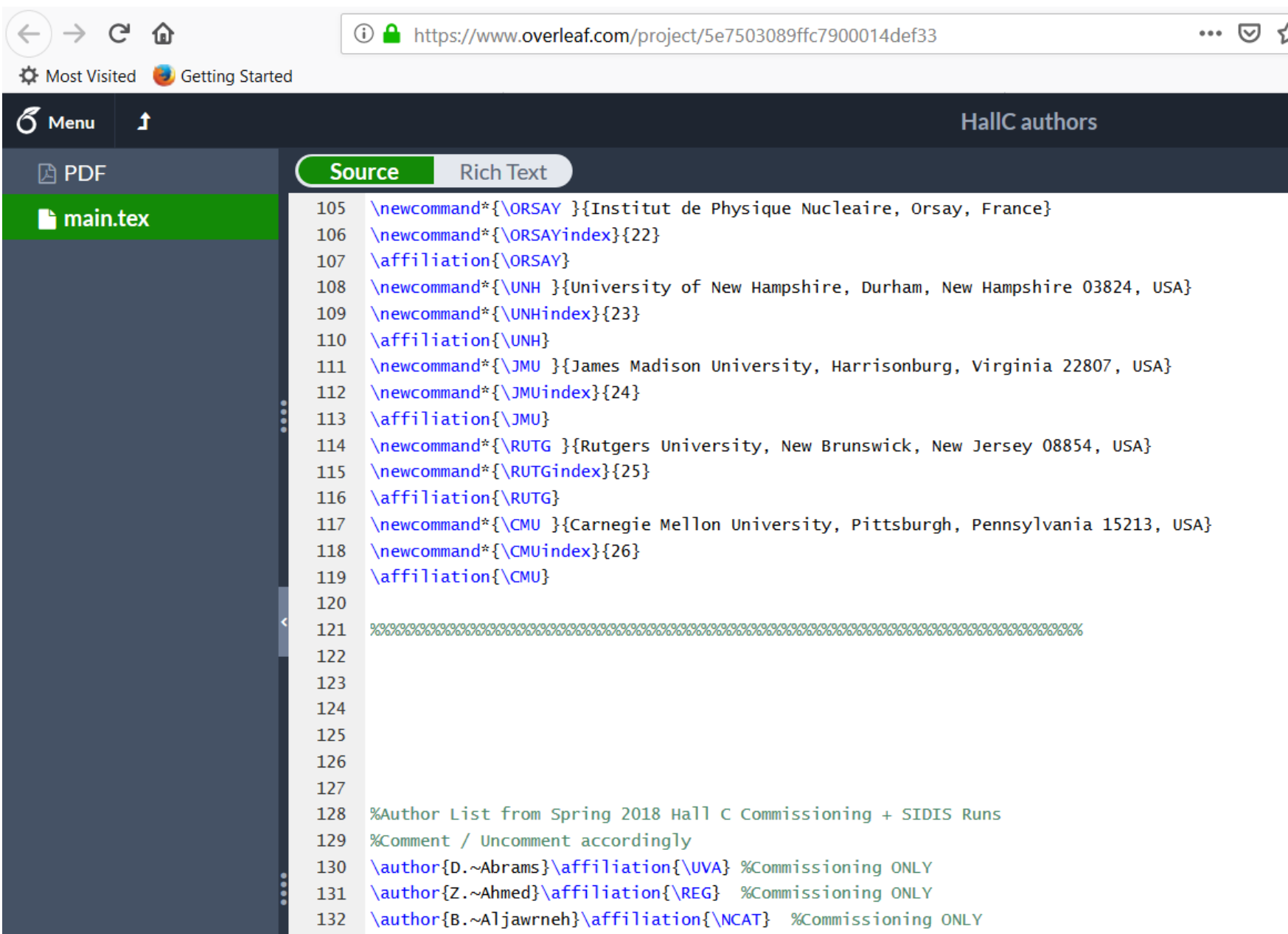
.....

87	Abel Sun	Carnegie Mellon University , Pittsburgh, PA	17	TRUE	FALSE	FALSE	
88	Holly Szumila-Vance	Jefferson Lab	32	TRUE	FALSE	FALSE	
89	Arun Tadeipalli	Rutgers University, New Brunswick, NJ	4	FALSE	FALSE	TRUE	f2
90	Vardan Tadevosyan	Artem Alikhanian National Laboratory (AANL).	19	TRUE	FALSE	FALSE	
91	Richard Trotta	Catholic University of America , Washington, DC	3	FALSE	FALSE	FALSE	
92	Andres Vargas Hernandez	Catholic University of America , Washington, DC	8	FALSE	TRUE	FALSE	
93	Stephen Wood	Jefferson Lab	11	FALSE	FALSE	FALSE	
94	Carlos Yero	Florida International University	31	TRUE	FALSE	FALSE	
95	Jinlong Zhang	Stony Brook, State University of New York	8	FALSE	TRUE	FALSE	
96	Jixie Zhang	University of Virginia, Charlottesville, VA	1	FALSE	FALSE	FALSE	

Contact Holly for  
questions/comments

# Commissioning Experiments Authorship List

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questions/comments



The screenshot shows a web browser window with the URL <https://www.overleaf.com/project/5e7503089ffc7900014def33>. The browser's address bar and tabs are visible. Below the browser, the Overleaf interface is shown. On the left, a sidebar contains a 'Menu' button and a 'PDF' view button. The main area is titled 'HallC authors' and has two tabs: 'Source' (selected) and 'Rich Text'. The 'Source' tab displays LaTeX code for defining author affiliations. The code includes commands for ORSAY, UNH, JMU, RUTG, and CMU, each with a corresponding index and affiliation text. There is a large block of commented-out code (lines 121-127) and a section of code (lines 128-132) for author definitions with affiliations and commissioning status.

```
105 \newcommand*{\ORSAY }{{Institut de Physique Nucleaire, Orsay, France}}
106 \newcommand*{\ORSAYindex}{22}
107 \affiliation{\ORSAY}
108 \newcommand*{\UNH }{{University of New Hampshire, Durham, New Hampshire 03824, USA}}
109 \newcommand*{\UNHindex}{23}
110 \affiliation{\UNH}
111 \newcommand*{\JMU }{{James Madison University, Harrisonburg, Virginia 22807, USA}}
112 \newcommand*{\JMUindex}{24}
113 \affiliation{\JMU}
114 \newcommand*{\RUTG }{{Rutgers University, New Brunswick, New Jersey 08854, USA}}
115 \newcommand*{\RUTGindex}{25}
116 \affiliation{\RUTG}
117 \newcommand*{\CMU }{{Carnegie Mellon University, Pittsburgh, Pennsylvania 15213, USA}}
118 \newcommand*{\CMUindex}{26}
119 \affiliation{\CMU}
120
121 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
122
123
124
125
126
127
128 %Author List from Spring 2018 Hall C Commissioning + SIDIS Runs
129 %Comment / Uncomment accordingly
130 \author{D.~Abrams}\affiliation{\UVA} %Commissioning ONLY
131 \author{Z.~Ahmed}\affiliation{\REG} %Commissioning ONLY
132 \author{B.~Aljawrneh}\affiliation{\NCAT} %Commissioning ONLY
```



# Commissioning Experiments Authorship List

Contact Holly for  
questions/comments

## Author list

D. Abrams,<sup>2</sup> Z. Ahmed,<sup>4</sup> B. Aljawrneh,<sup>5</sup> S. Alsalmi,<sup>6</sup> R. Ambrose,<sup>4</sup> D. Androic,<sup>7</sup> W. Armstrong,<sup>8</sup> A. Asaturyan,<sup>9</sup>  
K. Assumin-Gyimah,<sup>1</sup> C. Ayerbe Gayoso,<sup>10</sup> A. Bandari,<sup>10</sup> S. Basnet,<sup>4</sup> V. Berdnikov,<sup>11</sup> H. Bhatt,<sup>1</sup> D. Bhetuwal,<sup>1</sup>  
D. Biswas,<sup>12</sup> W. Boeglin,<sup>13</sup> P. Bosted,<sup>10</sup> E. Brash,<sup>14</sup> M. Bukhari,<sup>15</sup> H. Chen,<sup>2</sup> J.P. Chen,<sup>3</sup> M. Chen,<sup>2</sup> E.M. Christy,<sup>12</sup>  
S. Covrig,<sup>3</sup> K. Craycraft,<sup>16</sup> S. Danagoulian,<sup>5</sup> D. Day,<sup>2</sup> M. Diefenthaler,<sup>3</sup> M. Dlamini,<sup>17</sup> J. Dunne,<sup>1</sup> B. Duran,<sup>8</sup> D.  
Dutta,<sup>1</sup> R. Ent,<sup>3</sup> R. Evans,<sup>4</sup> H. Fenker,<sup>3</sup> N. Fomin,<sup>16</sup> E. Fuchey,<sup>18</sup> D. Gaskell,<sup>3</sup> T.N. Gautam,<sup>12</sup> F.A. Gonzalez,<sup>19</sup>  
O. Hansen,<sup>3</sup> F. Hauenstein,<sup>20</sup> A.V. Hernandez,<sup>11</sup> T. Horn,<sup>11</sup> G. Huber,<sup>4</sup> M.K. Jones,<sup>3</sup> S. Joosten,<sup>8</sup> L. Kabir,<sup>1</sup>  
A. Karki,<sup>1</sup> C. Keppel,<sup>3</sup> A. Khanal,<sup>13</sup> P. King,<sup>17</sup> E. Kinney,<sup>21</sup> H.S. Ko,<sup>22</sup> M. Kohl,<sup>12</sup> N. Lashley-Colthirst,<sup>12</sup> S. Li,<sup>23</sup>  
W. Li,<sup>10</sup> A.H. Liyanage,<sup>12</sup> D. Mack,<sup>3</sup> S. Malace,<sup>3</sup> P. Markowitz,<sup>13</sup> J. Matter,<sup>2</sup> D. Meekins,<sup>3</sup> R. Michaels,<sup>3</sup>  
H. Mkrtchyan,<sup>9</sup> S.J. Nazeer,<sup>12</sup> S. Nanda,<sup>1</sup> G. Niculescu,<sup>24</sup> M. Niculescu,<sup>24</sup> D. Nguyen,<sup>2</sup> N. Nuruzzaman,<sup>25</sup>  
B. Pandey,<sup>12</sup> S. Park,<sup>19</sup> E. Pooser,<sup>3</sup> A. Puckett,<sup>18</sup> M. Rehfuss,<sup>8</sup> J. Reinhold,<sup>13</sup> N. Santiesteban,<sup>23</sup> B. Sawatzky,<sup>3</sup>  
G. Smith,<sup>3</sup> A. Sun,<sup>26</sup> H. Szumila-Vance,<sup>3</sup> V. Tadevosyan,<sup>9</sup> R. Trotta,<sup>11</sup> S.A. Wood,<sup>3</sup> C. Yero,<sup>13</sup> and J. Zhang<sup>19</sup>  
(for the Hall C Collaboration)

## Remember:

- Individual experiments can add whoever they want additionally for their specific papers
- Commissioning experiments need to add those who were instrumental in commissioning
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# SHMS NIM paper status

The draft is now on overleaf; some progress has been made since Winter; Roger Carlini will call for a meeting with authors in the next few weeks to assess the status and make speedy progress toward submission for publication

The screenshot displays the Overleaf web interface for a project titled "SHMS NIM paper". The browser address bar shows the URL: <https://www.overleaf.com/project/5e9667e71bb568000124b3f3>. The interface includes a top navigation bar with options like "Menu", "Review", "Share", "Submit", "History", and "Chat". A left sidebar shows a file explorer with folders like "aerogel", "conclude", "drifts", "hgcerenk", "intro", "ngcerenk", "optics", "performance", "quartz", "scint", "shielding", and "shower". The "quartz" folder is expanded, showing files like "quartz.tex", "shms\_s2y\_ampfi...", "shms\_s2y\_intfit...", and "shms\_s2y\_intfit...". The main editor area displays the "Abstract" section of the paper, which describes the SHMS (Super High Momentum Spectrometer) built for Hall C at the Thomas Jefferson National Accelerator Facility. The abstract mentions its momentum capability (11 GeV/c), its role in measuring secondary charged particles, and its sophisticated shielding. Below the abstract, the "Keywords" are listed: Magnetic spectrometer, Electron scattering, Tracking detectors, Particle identification, Electron calorimetry, Radiation shielding. The bottom of the screen shows the beginning of the "1. Introduction" section, with line numbers 1 through 19 visible. The text in the introduction describes the electron beam at Jefferson Lab and the program of experiments focusing on elucidating the electron beam's properties.

**Abstract**

The *Super High Momentum Spectrometer* (SHMS) has been built for Hall C at the Thomas Jefferson National Accelerator Facility (Jefferson Laboratory). With a momentum capability reaching 11 GeV/c, the SHMS provides measurements of secondary charged particles produced in electron scattering experiments using the maximum available beam energy from the upgraded Jefferson Lab accelerator. The SHMS is an ion-optics magnetic spectrometer comprised of a series of new superconducting magnets to transport events on an array of triggering, tracking, and particle-identification detectors that measure momentum, energy, angle and position in order to allow kinematic reconstruction of the events back to their origin at the scattering target. The detector system is protected from background radiation by a sophisticated shielding enclosure. The entire spectrometer is mounted on a rotating support structure which allows measurements to be taken with a large acceptance over laboratory scattering angles from 5.5° to 40°, thus allowing a wide range of low cross-section experiments to be conducted. These will complement and extend the previous Hall C research program to higher energies.

**Keywords:** Magnetic spectrometer, Electron scattering, Tracking detectors, Particle identification, Electron calorimetry, Radiation shielding.

**1. Introduction**

The electron beam at Jefferson Lab operates at high duty cycle, with beam repetition rates of 249.5 or 499 MHz delivered to the experimental halls. High beam polarization (> 80%) is also routinely available.

In the 6 GeV era, Halls A, B, and C executed a large program of experiments focusing primarily on eluci-



# SHMS NIM paper status

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## 1. Introduction: [D. Gaskell](#)

- A. Brief overview of JLab accelerator and electron beam
- B. The ongoing physics program of Hall C (what has Hall C been good at?)
- C. Physics program in the 12GeV era (what we will do in the future)

## 2. Specifications for the upgraded Hall-C Spectrometer: [H. Fenker](#)

## 3. Design and Development of the SHMS Systems

- 3.1. Magnetic Optics: [M. Jones](#)
- 3.2. Shield House Layout, Shielding Design: [T. Horn](#)
- 3.3. Scintillator Trigger Hodoscopes: [I. Niculescu](#), [G. Niculescu](#)
- 3.4. Quartz-bar Trigger Hodoscope: [S. Malace](#)
- 3.5. Drift Chambers: [E. Christy](#)
- 3.6. Heavy-Gas Cerenkov Counter: [G. Huber](#)
- 3.7. Noble-Gas Cerenkov Counter: [D. Day](#)
- 3.8. Aerogel Cerenkov Counter: [T. Horn](#)
- 3.9. Preshower and Shower Counters: [H. Mkrtchyan](#), [V. Tadevosyan](#)
- 3.10. Trigger and Data Acquisition: [B. Sawatzky](#)
- 3.11. Software: [S. Wood](#)
  - 3.11.1. Online Monitoring
  - 3.11.2. Common-use Analysis Packages

## 4. SHMS Performance: Operating Experience and Commissioning Results

([H. Fenker with Input from ALL](#)) [Bill Henry](#)

Results highlighting results from each part of section 3

## 5. Conclusion

# Onsite Access during MEDCON-5

## [Cuga] \*Please save\* User update for status and site access requirements- a message from Yordanka Ilieva (on behalf on (JLUOBoD)

Lorelei Carlson [lorelei@jlab.org](mailto:lorelei@jlab.org)

Wed Jul 15 11:14:56 EDT 2020

- Previous message: [\[Cuga\] Accelerator Schedule through December 2021- a message from Rolf Ent and Camille Ginsburg for the Nuclear Physics Experiment Scheduling Committee](#)
- Messages sorted by: [\[ date \]](#) [\[ thread \]](#) [\[ subject \]](#) [\[ author \]](#)

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Dear Colleagues,

As JLab changed status from MedCon-6 to MedCon-5, we have assembled relevant information for users about access status and requests.

JLab COVID19 web site (login required):

[https://jlab.servicenowservices.com/cv19?id=cv19\\_index](https://jlab.servicenowservices.com/cv19?id=cv19_index)

Access Status: Earlier this Spring, all Users' badges were deactivated as the lab ceased normal operations due to the pandemic. The badges will not be automatically reactivated, but will require users to complete a new access registration form.

Access Restrictions during MedCon-5: JLab has resumed limited on-site operations. Access to the lab is now highly restricted for both users and employees. For the most part, only users who are required for on-site operations (as determined by the hall leaders or Physics division) will be granted access.

Access for shift-takers during MedCon-5: If you have signed up for in-person shifts, the experimental spokesperson or the PDL will request the approval from the Hall Leader for you. They will inform you when they have submitted the shift-takers names for approval. You can submit a registration form then. Keep in mind that users must submit a new registration form at least seven days before on-site arrival. JLab has informed us that the 7-day-advance registration policy may be relaxed during MEDCON 5 to facilitate operations and remain flexible to dynamic scheduling challenges, but please, let us not abuse this relaxation.

# Onsite Access during MEDCON-5

See the following link for information on the training and health questionnaire required before arrival.

• Rectangular Snip

<https://www.jlab.org/memo/medcon-5-employeeuser-training-requirements>

**Non-shift access:** If you need to come at the Lab for non-shift-related work, you need to obtain first an approval from the respective Hall Leader. Bear in mind that such approvals are tightly restricted, and only requests for required work will be considered. Approved users must submit a new registration form at least seven days before on-site arrival as described above.

If you need urgent temporary facility access (such as to retrieve materials from your office or to secure equipment), you should contact your Jefferson Lab sponsor.

During MEDCON 5, CEBAF Center and the Support Services Center (SSC) front desks will not be staffed. If you are a user approved to be on-site and are experiencing badge access issues, contact Security at (757) 269-5822.

**If you forgotten or have lost your badge:** If you are a user approved to be on-site and are requiring the issuance of a replacement badge, you must request an appointment by phone (757) 269-6588, or email [fso at jlab.org](mailto:fso@jlab.org). Appointment times are available Monday through Friday, 8 a.m. to 12:00 p.m. The badging office is located at the SSC, Bldg. 28, Room 52. Reminder: Security and Badging staff are working remotely during MEDCON 5. Badging services will only be conducted with at least 24 hours advance scheduling and all access requirements completed.

**Residence Facility Reservation Request:** Residence Facility reservations can be made at <http://www1.sura.org/resfac/accomodations/reserve.html> ([https://urldefense.proofpoint.com/v2/url?u=http-3A\\_www1.sura.org\\_resfac\\_accomodations\\_reserve.html&d=DwMDaQ&c=CJqEzB1piLOyyvZjb8YUQw&r=9hDhXEcLGA8uJeQC2XPhvy1Xfti5e\\_UBZ8o9PCgL8AY&m=DieWCwSlX207K9hsdOeyj5Qm1fLEW\\_f4obNhTWhx51s&s=JODMGzMMZaTrs0VF7Y1c01jE7HGlrFoHiGcLu\\_f\\_VI&e=>](https://urldefense.proofpoint.com/v2/url?u=http-3A_www1.sura.org_resfac_accomodations_reserve.html&d=DwMDaQ&c=CJqEzB1piLOyyvZjb8YUQw&r=9hDhXEcLGA8uJeQC2XPhvy1Xfti5e_UBZ8o9PCgL8AY&m=DieWCwSlX207K9hsdOeyj5Qm1fLEW_f4obNhTWhx51s&s=JODMGzMMZaTrs0VF7Y1c01jE7HGlrFoHiGcLu_f_VI&e=>) (new online form)). The facility will hold rooms for you until you have completed the approval and registration process. The facility will instruct you how to confirm that you are allowed on site. Access code to get your "key packet" on the day of arrival will only be sent, once ResFac gets the final approval from JLAB prior to your arrival. To be clear, this means that SURA will not allow visitors and users who do not have Jefferson Lab campus access to self-isolate at the Residence Facility until campus access is granted.

**Checking Your Badge Status:** In order to check your current access status, you login to JList from a browser that runs on a JLab server. Instructions on how to access the servers remotely can be found on the CC web site (login required): <https://cc.jlab.org/remotearchive> (bottom of page). The VDI option has proven to be reasonably fast.

**Further information:** Please, follow carefully the JLab Weekly e-mails for updates on the evolving situation. Often, these can be found on the side of the main articles. If you need help with further questions do not hesitate to let one of us know, or contact the User Liaison ([mailto:lorelei at jlab.org](mailto:lorelei@jlab.org)) office directly.