

CWGM WORKSHOP

Program for the Visit – June 3-5 2025 - Laboratory Meetings and Tours

Attendees

Aaron Bader - Type One Energy
Adelle Wright - University of Wisconsin Madison
Alexander Knieps - Forschungszentrum Jülich
Benedikt Geiger - UW Madison
David Smith - University of Wisconsin Madison
Elizabeth Paul - Columbia University
Federico Nespola - PPPL
Marcin Jakubowski - Max Planck Institute for Plasma Physics
Masanori Nunami - National Institute for Fusion Science
Michael Zarnstorff - PPPL
Motojima Gen - NIFS
Novimir Pablant - PPPL
Robert Lunsford - PPPL
Tamura Naoki - Max Planck Institute for Plasma Physics
Walter Guttenfelder - Type One Energy
Yuki Takemura - National Institute for Fusion Science

Please let your host know if you have any accommodations/accessibility requests.

Visitor Access at PPPL

The DOE O 473.1A Physical Protection Program requires visitors to DOE facilities to present [REAL ID-compliant documentation](#) to access the Lab. The guard will direct visitors to the visitor parking near the Lyman Spitzer Building (LSB). You will be greeted by your host(s) for the visit in the lobby of LSB.

Taxi or rideshare services such as Uber or Lyft are not permitted on PPPL campus. Instead, you will need to be dropped off at the guard booth where you will present your ID and then walk a short distance to the main entrance of the LSB building.

Touring PPPL Facilities

All tour participants must wear flat, closed-toe shoes. No dresses are permitted to be worn on tours. Safety glasses and safety vests will be provided for all tour areas. Hard hats will be provided for FLARE tours. Pacemaker wearers are not permitted in rooms when magnets are energized. Climbing three flights of steel-industrial stairs will be required in some areas. No food/beverages permitted in tour/experimental areas.

Remote Attendance: Zoom Connection Information

Link: <https://pppl.zoom.us/j/97064717667?pwd=PQDKwkdjc6mQTotNaRxLHtDKmVchs8.1>

Meeting ID: 970 6471 7667

Passcode: cwgm2025

Contact person: Maryallen Andel, Cell: (609) 216-0711

Location: 100 Stellarator Road, Princeton, NJ [PLEASE USE GPS](#)

June 3, 2025

| | |
|---------|---|
| 8:30am | Welcome Meet & Greet (LSB Lobby) Novimir Pablant and Maryellen Andal |
| 9:00am | Evacuation Safety Briefing, PPPL Mission and Overview CWGM Introduction Lead: N. Pablant Location: B318 |
| 9:20am | Machine Reports I Lead: N. Tamura Location: B318 |
| 10:30am | Coffee Break Location: B318 |
| 11:00am | Machine Reports - II Lead: N. Tamura Location: B318 |
| 12:30pm | Hostless Lunch Location: Cafeteria |
| 2:00pm | EPMHD - I Lead: A. Wright/A. Kneips Location: B318 |
| 3:30pm | Tours Lead: F. Nespoli / N. Pablant Location: LTX-B, FLARE, NCSX, MUSE 20 min per location - Tour video is 4 min long |
| 5:00PM | End of Day 1 |

June 4, 2025

| | |
|---------|--|
| 8:30am | ARRIVAL Location: LSB Lobby |
| 9:00am | TC - I Lead: M. Nunami/D. Carralero Location: B318 |
| 10:30am | Coffee Break Location: B318 |
| 11:00am | TC- II Lead: M. Nunami/D. Carralero Location: B318 |
| 12:30pm | Hostless Lunch Location: Cafeteria |
| 2:00pm | PPP and Stellarator reactor activities I Lead: G. Motojima/A. Alonso Location: B318 |
| 3:30pm | Coffee Break Location: B318 |
| 4:00pm | PPP and Stellarator reactor activities II Lead: Lead: G. Motojima/A. Alonso Location: B-318 |
| 5:30pm | End of Day 2 |
| 6:30pm | Hostless Dinner at Rocky Hill Tavern Location: 137 Washington St, Rocky Hill, NJ 08553 |

June 5, 2025

8:30am **Arrival**
Location: LSB Lobby

9:30am **SOLDIV - 1**
Lead: A. Bader/V. Winters
Location: B318

10:30am **Coffee Break**
Location: B318

11:00am **SOLDIV - II**
Lead: A. Bader/V. Winters
Location: B318

12:30pm **Hostless Lunch**
Location: Cafeteria

2:00pm **Discussion (LHD) proposal preparation and others)**
Lead: G. Motojima
Location: B318

3:30pm **Coffee Break**
Location: B318

4:00pm **Summary and Actions**
Lead: A. Alonso/N. Pablant
Location: B318

5:30pm **End of Workshop**

CWGM Organizing Committee:

Arturo Alonso (CIEMAT, Spain)
Benedikt Geiger (UW Madison, USA)
Dorothea Gradic (IPP, Germany)
Gen Motojima (NIFS, Japan)
Novmir Pablant (PPPL, USA)
Yuki Takemura (NIFS, Japan)

Local Organizing Committee:

Chair: Novimir Pablant (PPPL)
Co-Chair: Federico Nespoli (PPPL)

Local Administrative Coordinator:

Maryellen Andal (PPPL)

Topical Group Leaders:

Core Transport And Confinement In Multi-Ion Plasmas

M. Nunami (NIFS)
D. Carralero (CIEMAT)

Energy, Particle, And Impurity Transport In The Sol And Diverter:

A. Bader (Type One Energy)
V. Winters (IPP)

Energetic Particles, Mhd, And High-Beta

A. Knieps (FZJ)
A. Wright (UW-MADISON)

| 25th Coordinated Working Group Meeting, PPPL, June 3-5 2025 | | | | | | | | | | |
|---|-------|-------------|-------|-------|---|---|---------------------------|----------|----------|-----|
| | | | | | | | | | | |
| HSX | PPPL | W7-X, TJ-II | CFQS | LHD | Tuesday, 3 June | | | | | |
| UTC-5 | UTC-4 | UTC+2 | UTC+8 | UTC+9 | Session (organisers) | Subject | Presenter | Duration | | |
| 08:00 | 09:00 | 15:00 | 21:00 | 22:00 | Introduction and Machine Reports - I (Pablant, Gradic/Tamura) | Welcome & introduction | N. Pablant | 00:20 | 20' | |
| 08:20 | 09:20 | 15:20 | 21:20 | 22:20 | | Heliotron J | K. Nagasaki | 00:15 | 10' + 5' | |
| 08:35 | 09:35 | 15:35 | 21:35 | 22:35 | | HSX | B. Geiger | 00:15 | 10' + 5' | |
| 08:50 | 09:50 | 15:50 | 21:50 | 22:50 | | TJ-II | A. Alonso | 00:15 | 10' + 5' | |
| 09:05 | 10:05 | 16:05 | 22:05 | 23:05 | | LHD | G. Motojima / Y. Takemura | 00:15 | 10' + 5' | |
| 09:20 | 10:20 | 16:20 | 22:20 | 23:20 | | Others (Codes & HPC) | S. Satake | 00:15 | 10' + 5' | |
| 09:35 | 10:35 | 16:35 | 22:35 | 23:35 | Coffee break | | | | 00:25 | |
| 10:00 | 11:00 | 17:00 | 23:00 | 00:00 | Machine Reports - II (Gradic/Tamura, Pablant) | W7-X (TC) | D. Carralero | 00:15 | 10' + 5' | |
| 10:15 | 11:15 | 17:15 | 23:15 | 00:15 | | W7-X (SOL/DIV) | D. Gradic | 00:15 | 10' + 5' | |
| 10:30 | 11:30 | 17:30 | 23:30 | 00:30 | | W7-X (EP/MHD) | A. Knieps | 00:15 | 10' + 5' | |
| 10:45 | 11:45 | 17:45 | 23:45 | 00:45 | | W7-X (Plan) | M. Jakubowski | 00:10 | 5' + 5' | |
| 10:55 | 11:55 | 17:55 | 23:55 | 00:55 | | Others (Database) | A. Dinklage | 00:15 | 10' + 5' | |
| 11:10 | 12:10 | 18:10 | 00:10 | 01:10 | | Discussion | All | 00:20 | 20' | |
| 11:30 | 12:30 | 18:30 | 00:30 | 01:30 | Lunch break | | | | 01:30 | |
| 13:00 | 14:00 | 20:00 | 02:00 | 03:00 | EPMHD - I (Wright, Knieps) | MHD studies on W7-X, potential inputs towards LHD experiments | A. Knieps | 00:30 | 30' | |
| 13:30 | 14:30 | 20:30 | 02:30 | 03:30 | | LHD MHD studies update | Y. Takemura | 00:30 | 20' | |
| 14:00 | 15:00 | 21:00 | 03:00 | 04:00 | | Discussion | | 00:20 | 20' | |
| 14:20 | 15:20 | 21:20 | 03:20 | 04:20 | PPPL tour | | | | 01:10 | 70' |
| 15:30 | 16:30 | 22:30 | 04:30 | 05:30 | | | | | | |

| 25th Coordinated Working Group Meeting, PPPL, June 3-5 2025 | | | | | | | | | |
|---|-------|-------------|-------|-------|---|---|--------------------------|----------|-----------|
| HEX | PPPL | W7-X, TJ-II | CFQS | LHD | Wednesday, 4 June | | | | |
| UTC-5 | UTC-4 | UTC+2 | UTC+8 | UTC+9 | Session (organisers) | Subject | Presenter | Duration | |
| 08:00 | 09:00 | 15:00 | 21:00 | 22:00 | TC - I (Carralero, Nunami) | Overview of the status of the ongoing JE/JA | D. Carralero / M. Nunami | 00:20 | 20' |
| 08:20 | 09:20 | 15:20 | 21:20 | 22:20 | | Status of W7-X/LHD comparative studies and plans for the upcoming LHD campaign | K. Tanaka | 00:20 | 15' + 5' |
| 08:40 | 09:40 | 15:40 | 21:40 | 22:40 | | Summary of EM turbulence studies in the OP2.2 and OP2.3 campaigns in W7-X | K. Aleinikova | 00:20 | 15' + 5' |
| 09:00 | 10:00 | 16:00 | 22:00 | 23:00 | | Overview of the impurity injection studies and remaining work for LHD | F. Nespoli | 00:15 | 15' |
| 09:15 | 10:15 | 16:15 | 22:15 | 23:15 | | Discussion | All | 00:15 | 15' |
| 09:30 | 10:30 | 16:30 | 22:30 | 23:30 | Coffee break | | | 00:30 | |
| 10:00 | 11:00 | 17:00 | 23:00 | 00:00 | TC - II (Carralero, Nunami) | Validation of the GENE-Tango-KNOSOS suite in W7-X and remaining work in the way for reactor-relevant predictions | D. Fernando | 00:20 | 15' + 5' |
| 10:20 | 11:20 | 17:20 | 23:20 | 00:20 | | Transport studies with stella: evaluation of massive parametric scans with TJ-II and W7-X data | J. M. Garcia-Regaña | 00:20 | 15' + 5' |
| 10:40 | 11:40 | 17:40 | 23:40 | 00:40 | | Emergence of sub-threshold KBMs in W7-X high beta plasmas | P. Mulholland | 00:20 | 15' + 5' |
| 11:00 | 12:00 | 18:00 | 00:00 | 01:00 | | Discussion | All | 00:30 | 30' |
| 11:30 | 12:30 | 18:30 | 00:30 | 01:30 | Lunch break | | | 01:30 | |
| 13:00 | 14:00 | 20:00 | 02:00 | 03:00 | PPP and Stellarator Reactor Activities - I (Alonso, Motojima, Pablant) | Helias Physics GAPS (EU) | Marcin Jakubowski | 00:30 | 15' |
| 13:30 | 14:30 | 20:30 | 02:30 | 03:30 | | STARS Workshop (US) | Novimir Pablant | 00:30 | 15' |
| 14:00 | 15:00 | 21:00 | 03:00 | 04:00 | | Fusion Strategy (Japan) | Gen Motojima | 00:30 | 15' |
| 14:30 | 15:30 | 21:30 | 03:30 | 04:30 | Coffee break | | | 00:30 | |
| 15:00 | 16:00 | 22:00 | 04:00 | 05:00 | PPP and Stellarator Reactor Activities - II (Alonso, Motojima, Pablant) | Proxima Fusion's path towards a first-of-a-kind stellarator power plant: entry points for collaborations | J. Lion | 00:30 | 15' + 10' |
| 15:30 | 16:30 | 22:30 | 04:30 | 05:30 | | Perspectives on science & technology research priorities and PPP within the context of international stellarator activities | W. Guttenfelder | 00:30 | 15' + 10' |
| 16:00 | 17:00 | 23:00 | 05:00 | 06:00 | | Helical Fusion's Current R&D Status and Future Plans towards Helical Fusion Pilot Plant | T. Goto | 00:30 | 15' + 10' |
| 16:30 | 17:30 | 23:30 | 05:30 | 06:30 | | | | | |

| 25th Coordinated Working Group Meeting, PPPL, June 3-5 2025 | | | | | | | | | |
|---|-------|-------------|-------|-------|--|-------------------------------|--------------------------------|----------|----------|
| HSX | PPPL | W7-X, TJ-II | CFQS | LHD | Thursday, 5 June | | | | |
| UTC-5 | UTC-4 | UTC+2 | UTC+8 | UTC+9 | Session (organisers) | Subject | Presenter | Duration | |
| 08:00 | 09:00 | 15:00 | 21:00 | 22:00 | SOLDIV - I (Bader, Winters) | Closed island divertor design | A. Kharwandikar (V. Winters) | 00:30 | 15' + 5' |
| 08:30 | 09:30 | 15:30 | 21:30 | 22:30 | | Overview of NRD work | A. Bader | 00:30 | 30' |
| 09:00 | 10:00 | 16:00 | 22:00 | 23:00 | | Discussion | All | 00:30 | 30' |
| 09:30 | 10:30 | 16:30 | 22:30 | 23:30 | Coffee break | | | 00:30 | |
| 10:00 | 11:00 | 17:00 | 23:00 | 00:00 | SOLDIV - II (Bader, Winters) | Inter-device database update | D. Boeyaert | 00:30 | 20' + 5' |
| 10:30 | 11:30 | 17:30 | 23:30 | 00:30 | | TJ-II density limit database | J. Gallego | 00:30 | 20' + 5' |
| 11:00 | 12:00 | 18:00 | 00:00 | 01:00 | | Discussion | All | 00:30 | 30' |
| 11:30 | 12:30 | 18:30 | 00:30 | 01:30 | Lunch break | | | 01:30 | |
| 13:00 | 14:00 | 20:00 | 02:00 | 03:00 | Discussion (LHD experimental proposals and others) (Motojima, Pablant) | | All | 01:30 | |
| 14:30 | 15:30 | 21:30 | 03:30 | 04:30 | Coffee break | | | 00:30 | |
| 15:00 | 16:00 | 22:00 | 04:00 | 05:00 | Summary, next meeting and actions (Alonso, Pablant) | | N. Pablant / A. Alonso and All | 01:30 | |
| 16:30 | 17:30 | 23:30 | 05:30 | 06:30 | | | | | |