

Guidelines for using the PPMS in Lee group

Training

1. **Scheduling Training:** Contact Wei He (weihe@stanford.edu) to schedule an in-person training if you are new users.
 2. **Preparation:** Review the relevant sections of the PPMS manual before the in-person training session.
 3. **First Measurement:** Ensure Wei He is present for your first measurement.
 4. **Authorization:** Request Wei He to add you to the authorized user list once you have complete training and feel confident using the PPMS independently.
- **Attention:** Training is specific to each PPMS option. Option-switching can only be performed by Lee group members.

Scheduling

- **Advanced Booking:** Book sessions up to three weeks in advance on a first-come, first-served basis.
- **For Lee Group Users:** Sign up using the SuperSaaS calendar (<https://www.supersaas.com/schedule/LeeGroup/PPMS>).
- **For External Users:** contact Wei He to schedule a time slot. Wei will sign up on the SuperSaaS calendar on your behalf. The samples and any possible hazards must be disclosed during scheduling.
- **Time Units:** Schedule sessions in the unit of day. Standard changeover time is 10 am unless an alternative time is agreed upon by the relevant users.
- **Respect for Other Users:** For Lee group users, avoid booking more than 4 consecutive days or more than 4 days in any 8-day period unless slots remain open. For external users, avoid booking more than 2 consecutive days or more than 2 days in any 8-day period. Contact Wei He to resolve any scheduling conflicts.
- **Long-Sequence Measurements:** Try to schedule extended measurements over weekends when possible.

Daily operation

- **Helium Cylinder:** Check the helium cylinder pressure before each use. Regulated pressure should be set to 15-20 psi, and cylinder pressure should always remain above 300 psi. Contact Wei He to replace the cylinder if it is close to 300 psi.

- **Option Switching:** Lee group users are responsible for option-switching for their measurements. If you are outside the Lee group, coordinate with Wei He or other authorized users for assistance.
- **Measurement Logging:** Record all measurements in the Google spreadsheet.
- **Special Sample Handling:** contact Wei He for approval if your sample requires special handling (e.g., toxic or air-sensitive materials). Leave a note on the PPMS desk during your measurements to indicate any special requirements.
- **Log File Recording:** Ensure that a Log File Recording is running continuously in the background (Utilities -> Log Data, repeat every 30 seconds, select “all” for both standard and diagnostic items). Name each file by the starting date. Restart a new file roughly every two weeks to keep file sizes manageable. Ask Wei He for assistance if needed.
- **Remote Control Access:** For Lee group users, use Chrome Remote Desktop to access the PPMS via its Google account. Only perform remote operations if you believe the operations are absolutely safe for the instrument. Disconnect immediately after each use. Contact Wei He for first-time login assistance.
- **Responsibility:** Wei He is responsible for regular maintenance and troubleshooting. Users are responsible for monitoring helium pressure level, logging measurements in the Google spreadsheet, running Log File Recording, monitoring the status of the PPMS, and promptly reporting any unusual behavior to Wei He during their sessions. Users are accountable for any damage caused by incorrect operations, which may also result in suspension of future PPMS access.

Appendix

Authorized users:

Wei He: ACMS, HC, Resistivity

Aeryn Breidenbach: ACMS, HC, Resistivity, Heat Transport

Arthur Campello: ACMS, HC, Resistivity

Bai Yang Wang: Resistivity

Ruohan Wang: Resistivity