

ARES Operation Meeting

Summary of week 38 / 2022

Frank Mayet, on behalf of the ARES crew

Summary of week 38

Achievements

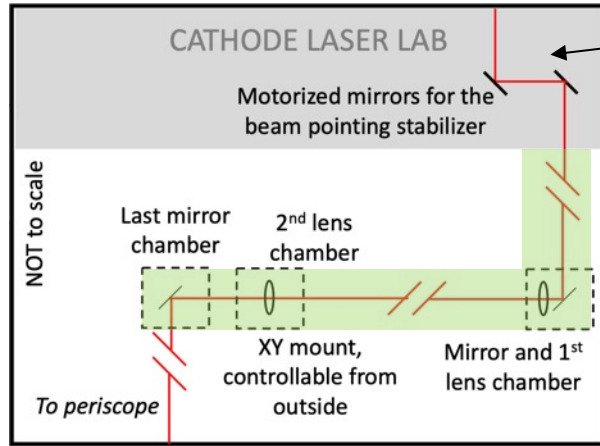
Difficulties

Notes

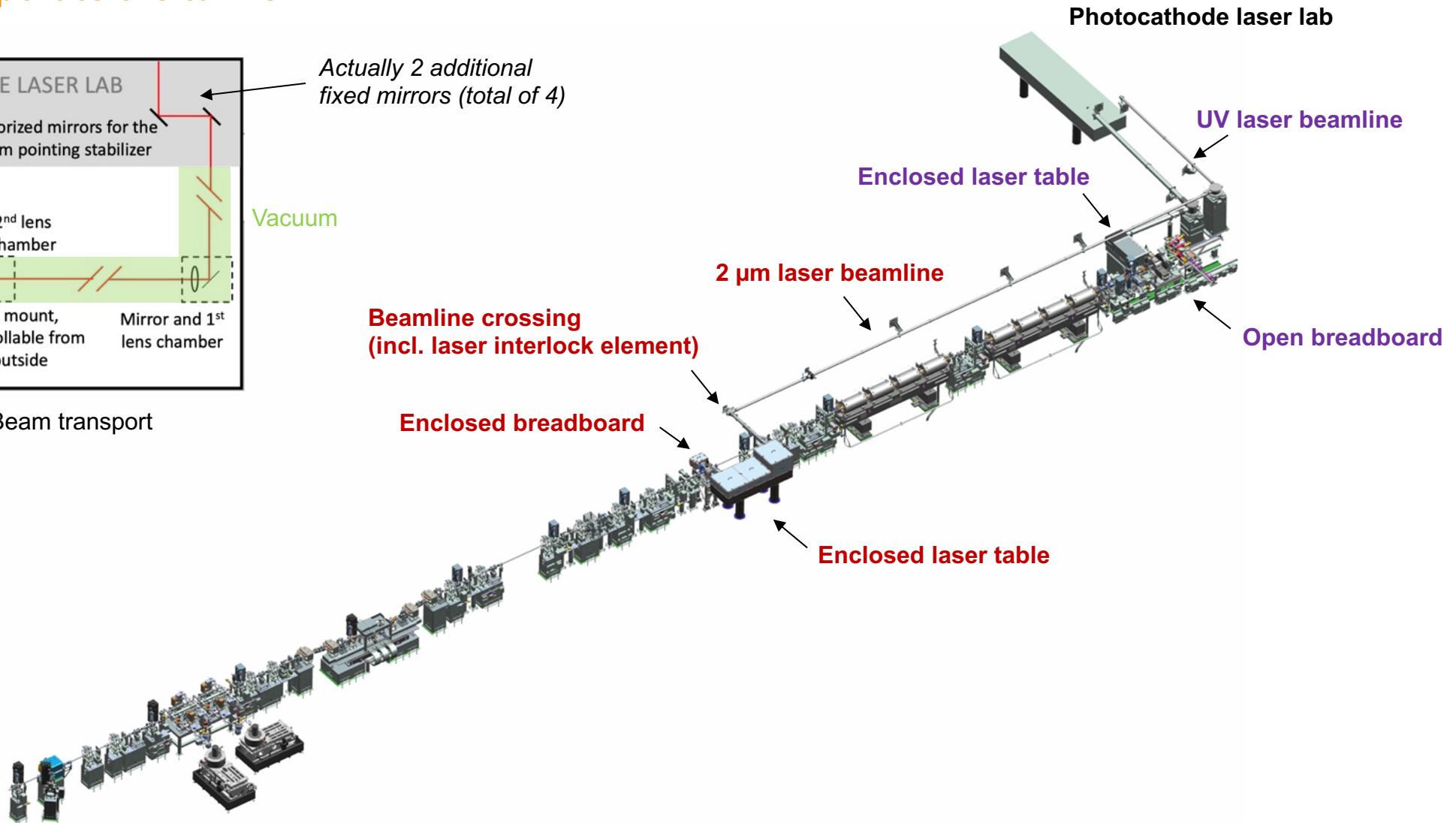
Mon. 19 th September	Tue. 20 th September	Wed. 21 st September	Thu. 22 nd September	Fri. 23 rd September
2 μm laser beamline alignment	2 μm laser beamline alignment 2 μm laser beam on the beam pointing stabilizer cameras (laser table EA)	2 μm laser beam through the chamber (signal on diode) - Tektronix oscilloscope DOOCS server back online - DC vs. gradient curve acquired - Transmission through DLA L optimized	- Autonomous accelerator studies - In parallel: 2 μm laser transport studies (alignment channels; DLA; via hexapod scans) - Tektronix oscilloscope connected to machine trigger	- Tunnel open for check of solenoid water-cooling - Final focusing optimization of the 2 μm laser beam in the tunnel - Check if the laser is visible on the timing camera (last time it was) → Only after conversion to 1 μm (used power still too low?)
		Unable to start tunnel search (fixed by MPS expert)		Fault in the water-cooling system for the solenoids was detected (checked by MPC and water-cooling colleagues → No hardware problem; solenoids can be operated; fault message to be investigated)
		Timing trace still shows oscillations despite added termination (problem in the fixed cabling of the PSU?)		

2 μm laser alignment

Beam transport to the tunnel

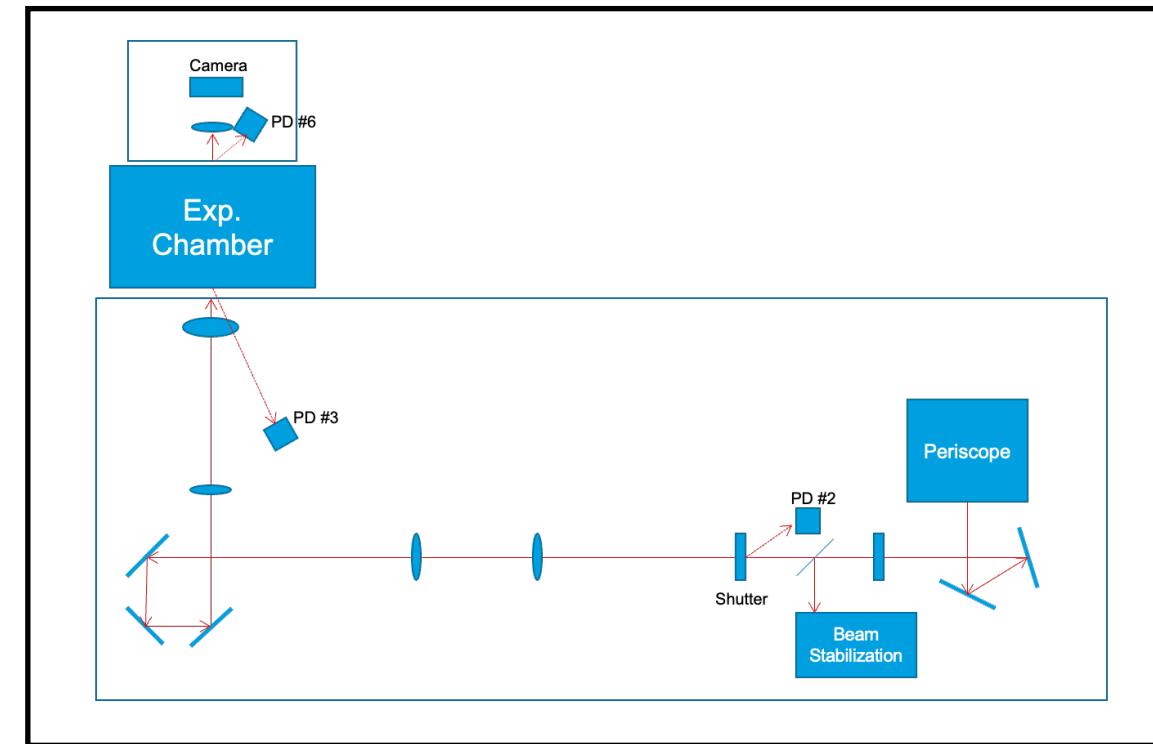
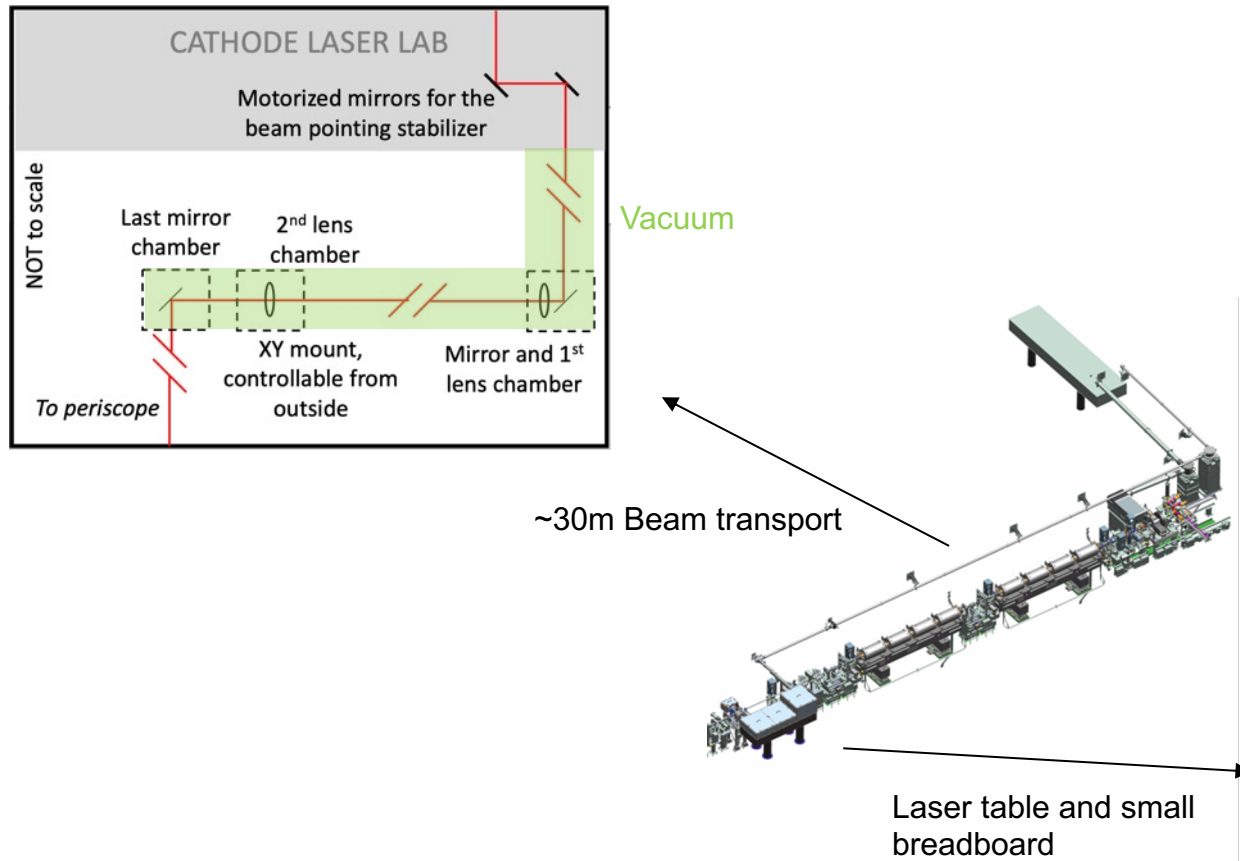


~30m Beam transport



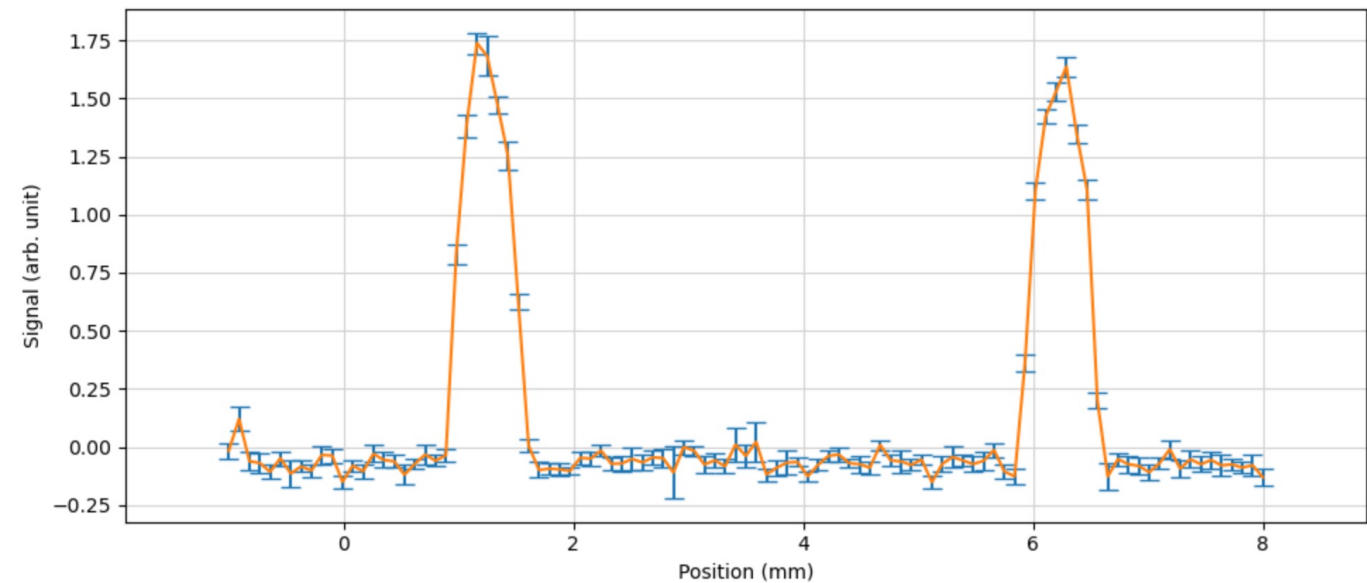
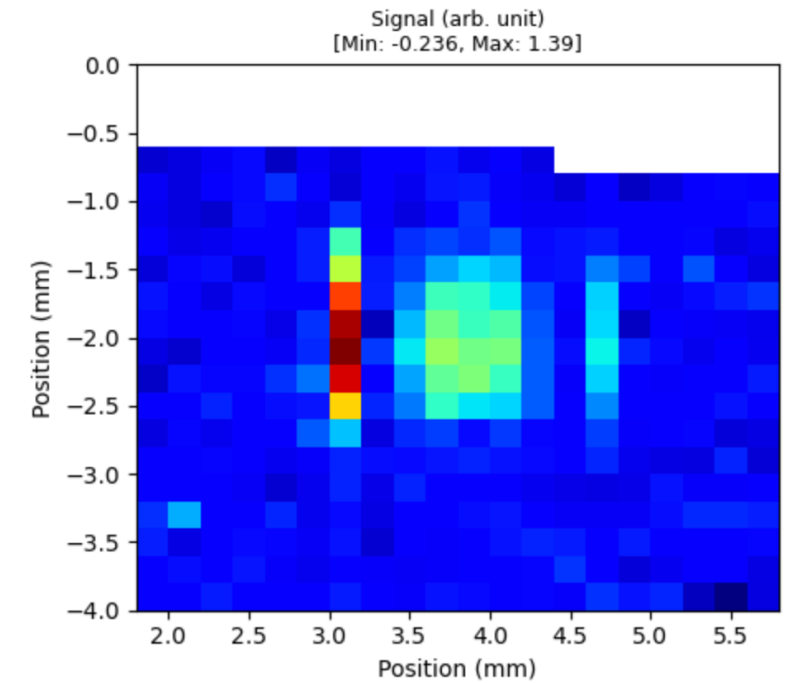
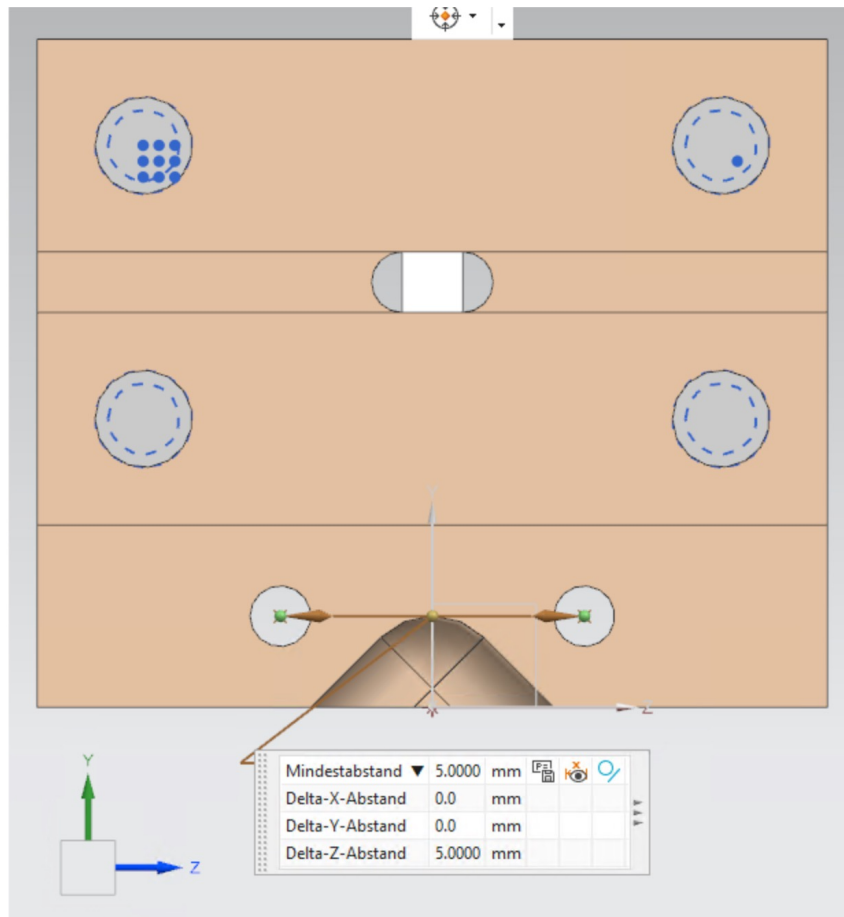
2 μm laser alignment

Beam transport to the chamber



2 μ m laser beam transport

Hexapod scans $\rightarrow$ Allows us to determine laser beam position



Plan

Week 39

- **Monday**
 - Tunnel open
- **Tuesday**
 - Tunnel open for MT meeting tours
- **Wednesday**
 - UKE visit in the morning (tunnel open)
- **Thursday**
 - AutoAcc + BPM DOOCS Server Tests (possible in parallel)
- **Friday**
 - Maybe tunnel open for PSI colleague (beam loss monitor)

- **Generally: ACHIP**

Schedule

Week 39

Date	Shift Leader
26.09.	-
27.09.	Frank
28.09.	Hannes
29.09.	Willi
30.09.	Thomas

If you want to learn or join the shift: please give the shift leader a call (BKR 2840 / SINBAD Box 2454)