

Mira : Optimize power

- Slit fully open (clockwise)
- Optimize the power, as shown as “monitor” on the 2nd unit / monitor laptop, with the “**fine pump mirrors**” and the horizontal and vertical “**cavity mirrors**” (carefully).
- During optimization, from time to time, toggle “Peak reset” (2nd unit) to the right. This zero's the differential view (=lower bar = difference in power since last “Peakreset”).
- Close slit (counter clockwise) until 50 % of power (see monitor laptop)
- 2nd unit : CW switch -> ML (mode locked,=middle position)
- Turn Wavelength knob a bit (or play with slit-width) until it mode-locks (stable pulse train on scope).
- Oscilloscope : adjust time-axis, voltage range and focus for a better view.
- Open the slit such that you get maximum power while it still mode-locks. For stability, maybe go a few monitor values lower.

* NB : the “coarse pump mirrors” are normally not needed. Also, the Vertical coarse one is very sensitive.

* NB : the horizontal fine pump mirror is nearly stuck in the counter-CW direction. Do not force it !!

For difficult wavelengths, where there is water absorption (e.g. > 900 nm), the relative humidity must be low, e.g. <= 20%. Maybe use higher N2 flush rate.

During the day, the power might drop a little. Try adjusting the “vertical fine pump mirror” or “vertical cavity mirror” first.