

## EPR Guidelines

1. Sign in on log-book.
2. Chooses Win EPR on desktop.
3. Open Microwave Bridge Control (MW in toolbar).
4. Open Int. Spec. Control (I in toolbar).
5. Check that the Center Field is close to 500 G.
6. Turn on power supply.
7. Increase center field value by 500 G increment until approximately 3500 G. Watch the "Hall Field" - wait for it to turn green before adding next increment.
8. On MWB, select "Tune." Lower attenuation to 40 and adjust Frequency until the dip is in the middle. Then adjust Signal Phase so the dip is sharp and the line is flat on either side of the dip. Put attenuation back to 50-60.
9. Select Operate. Tune AFC and Diode from attenuations 60 → 10. At attenuations 60 and 50, adjust Frequency and Bias; 40, 30, 20 adjust Frequency and Iris.
10. At Attenuation 10, use signal phase to move diode as far to the right as possible. Then use the Iris to move the diode meter back to the middle of the green. Continue to adjust AFC and Diode at different attenuations until the field is stable at all powers.
11. Increase attenuation to 50. Select "Tune". Decrease attenuation to 40 and make sure that the dip is a dip and not a hill.
  - a. If it is a hill, the signal phase was wrong. Go back to no. 8.
  - b. If the dip is okay, increase attenuation to 50. Select "Operate". Decrease attenuation, check and adjust ADC and iris (Diode) until the field is stable at all powers.
12. Open Spectrum window and check standard parameters. Enter the Center Field and Static Field values according to the frequency and the little chart taped on the monitor. These values should be the same and should correspond to the frequency value obtained after tuning the magnet.
13. Run spectra.
14. At the end of you experiment, return to the MWB. Increase the attenuation to 60, and go from Operate to Tune to Standby.
15. Reduce the Center field in increments of 500 G. Stop at 500 G. Turn off power supply.
16. Sign out of log-book.

NOTE: This list of instructions is not a replacement for training! It serves as a refresher for those who have already been trained before.