



To Do

- **Define list of measurements (scans) to make; e.g.**
 - PDS ratios as a function of forward power
 - QL as a function of forward power
 - Field flatness / voltage as a function of QL (per cavity)
 - Piezo LFD compensation: sensitivity to adjustment parameters.
 - Detuning as a function of time (RF pulse length)
 - using the decay at $P_{for}=0$
 - for different gradients (take 3)
 - Cross-talk within cavity pair: repeat detuning scans (with mechanical tuner!)
 - Vector sum tilt versus flat-top forward power (open loop)
 - gradient (flat-top) jitter (rms) vs detuning (a la Shilun)
 - cavity gradients as a function of beam current
 - feedback off, LFF off, no change to BLC.
 - impact of beam current on flat-gradient solution.
 - once flat gradient solution obtain, scan current \pm to see effect on cavity tilts. (Keeping vector sum constant – best way?)
 - Repeat above for gradient (adjust energy of 67)
- **Analysis scripts to support above**