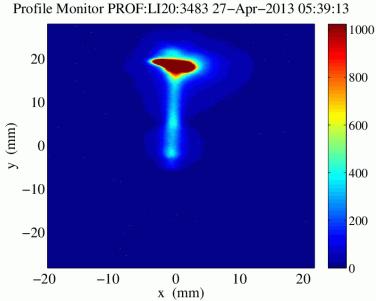
# FACET Summary Apr 27 – May 3

### Sat 27<sup>th</sup>

 Searched for the cause of the beam jitter with little or no luck. Jitter calmed down and the E200 experiment took data with Ar in the bypass line.



- Deceleration seen from the Ar gas in the bypass beam pipe.
- Access in the morning to replace a camera and another access in the evening to recover THz and OTR foil motors. Recover the machine and tune up. Beam jitter also returns in the afternoon hampering tune up. Klystron 1-1A tripped and had to be locally reset.

## • Sun 28<sup>th</sup>

— Rb oven moved onto beam line. E200 takes data. Discover the USTHZ foil (used for bunch length) has a frame that interferes with the beam. Switch to foil #3. Try to maintain machine for tonight's E200 shift. All VVS supplies tripped off due to a door that unlatched in the LCLS injector vault. Power supply for LI04 quad 221 did not come back up and had to be replaced. K02 klystron tripped on a PPS chain "A" fault and then the fault cleared by itself. ADSO and PPS people called in to make sure we could still run the machine. Beam to E200 using Rb oven during swing.

## • Mon 29<sup>th</sup>

E200 continues taking data and finds that the BCS LIONs around the interaction region trip off the beam when they get good beam-plasma interactions with the oven. POMM activities during rest of the morning. Then efforts were made to raise the trip level of the LIONs. Trip level increased ~2.5 on the north LION. The E200 run that night was better but we still had some trips.

# FACET Summary Apr 27 – May 3 (pg 2)

### Tue 30<sup>th</sup>

 E200 run during beginning of owl. Then characterize and save the status of the machine in preparation for the long upcoming downtime. Start of a 3 day PAMM to install and commission the TW laser. In addition, the lithium oven is installed.

#### Wed 1<sup>st</sup>

PAMM to continue installation and commissioning of the TW laser.

### Thu 2<sup>nd</sup>

Laser installation PAMM continues. Installed some PB (~1 cm thick) around the beam pipe after the QS1 magnet to try to suppress the low energy (<= 500 MeV) electrons generated by the beam-plasma interactions. Should be better in any case with Li oven instead of Rb oven (fewer electrons to ionize).</li>

#### Fri 3<sup>rd</sup>

Try to lock up the machine by 10am but PPS stopper in the positron extraction line was not working properly. LI19-20 area searched by 12:30. Stopper will need more work next week but is in a safe state. Ground fault found on a bend magnet in the NRTL. Tracked down to bend 250, the first bend magnet in the NRTL. The top of the magnet was removed and the insulating paper (DMD) was replaced. Back up and running by swing shift. NDR Klystron began to trip and a water leak was found and diverted. A magnet power supply failed to show off status. This tripped the PPS which took the rest of the day to straighten out.