

## End of the run plan – Be in 3T

1. Accumulate statistics at 1.62V level for 99% confidence interval in gradient measurement: 500k spark-free pulses.
2. Prepare safety documentation for plunger measurements
  - a. Procedure outlined by 04-20-17 morning (Alex)
  - b. Quench force calculations (Yagmur)
3. Hall access with the following goals:
  - a. Change the amplifier configuration on Faraday Cup
  - b. Install the plunger with glass slide and film inside
4. Run at high gradient in 3T to observe changes in Faraday Cup signal ( 0.5 hours)
5. Stepladder gradient measurement (2 hours)
6. Dark current measurements

### Dark current measurements

As the current state of the cavity does not allow inducing more breakdowns, it appears that film/glass measurements go down in value. However, there is some potential to probe the physics related to electron emission.

#### Equipment / Preparation:

- High resolution scanner brought to MTA clean room (currently at A0)
- Daniel's old laptop to connect scanner to (will needed to be carried in and out upon each hall access?)
- Clean wipes/ gloves/ alcohol
- Plunger's detachable head (currently in the hall with p=90%)
- Stack of clean glass slides/ films (currently at the station)
- Logbook and writing technology to keep track of the measurements
- Scissors

As expected outcomes of each measurement carry significant uncertainty, trial and error approach will be implemented for film/glass combinations. Depending on results from the first exposure to high gradient, next iterations of measurement will incorporate longer or shorter exposure times.

After each exposure, films and glass slides are to be scanned, recorded in the logbook and stored (storage system to be developed).