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Modular Cavity Status

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MAP Meeting

November 13, 2015 *

*I made a FNAL LaTeX slide template. Would you like a copy?

Overview of recent/upcoming work

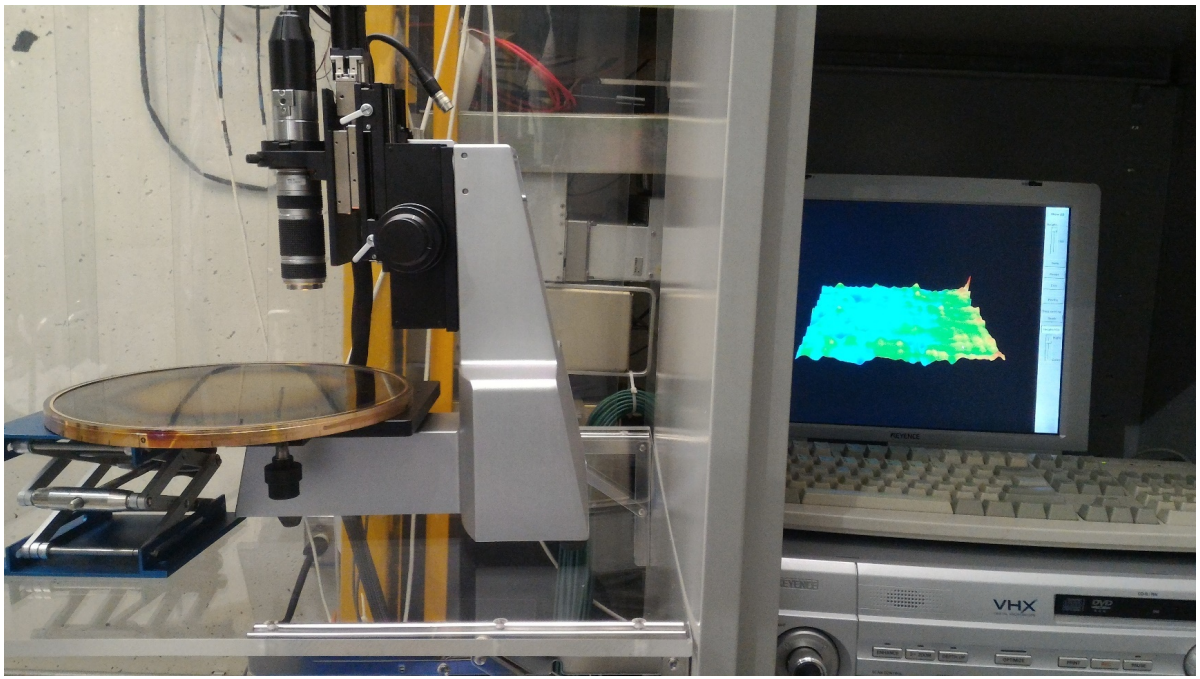
Recent Results

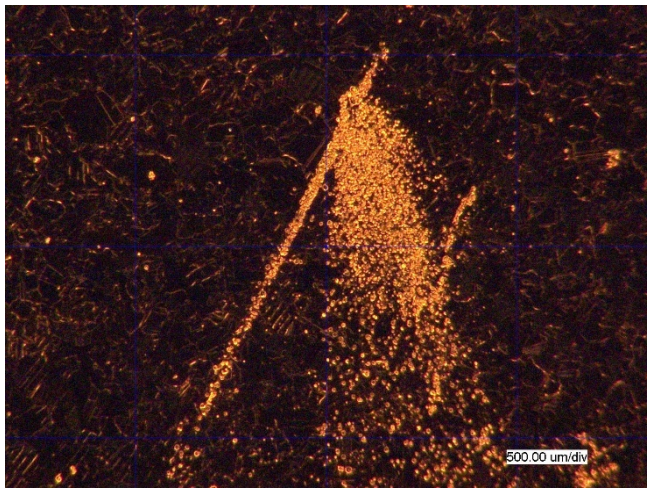
- Successful run up to $\sim$45 MV/m for $B = 0$.
- Interior surface inspection complete.
- Preparing now for $B > 0$ run.

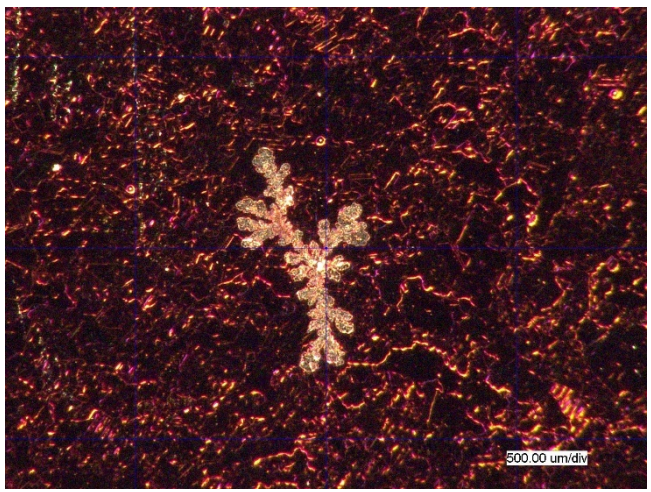
Upcoming Work

- Gasket replacement
- Calibration party
- Restart regular analysis meetings

Interior surface inspection is complete.







- All features imaged, coordinates recorded.
- Common features shown at right.

Feature positions from $B = 0$ run show no obvious pattern.

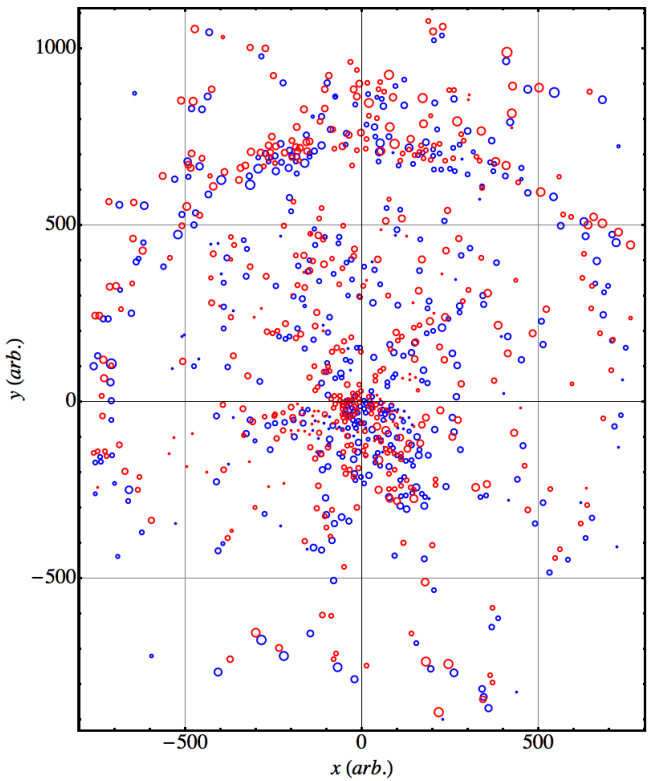


Figure : All-Seasons cavity damage map. 1-to-1 spot map.

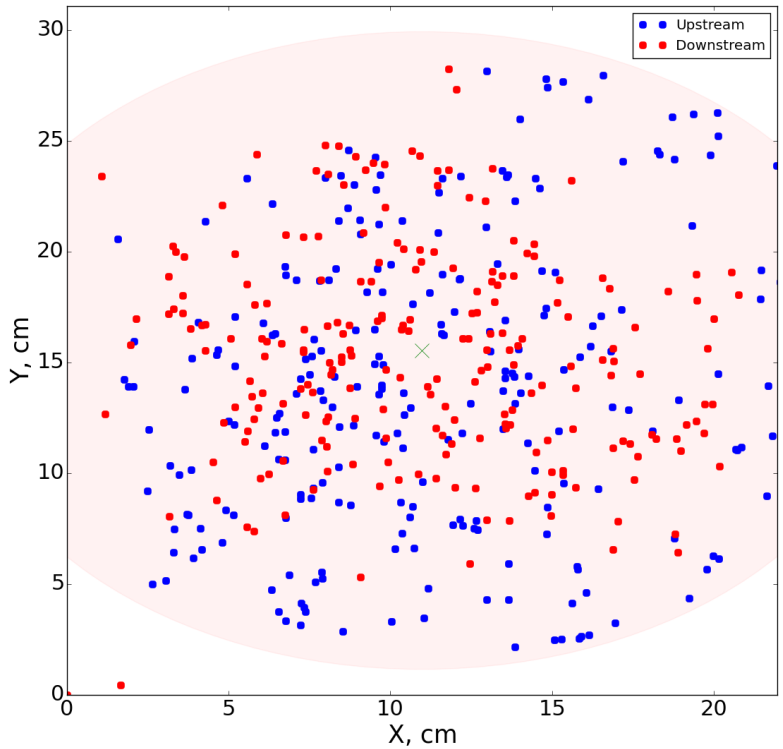


Figure : Modular cavity damage map. No discernible pattern.

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Feature positions from $B = 0$ run show no obvious pattern.

- 117 sparks recorded by DAQ in last run. $\sim$130 total.
- On upstream plate: 211 features imaged.
- On downstream plate: 158 features imaged.
- Obvious questions for ongoing analysis effort.

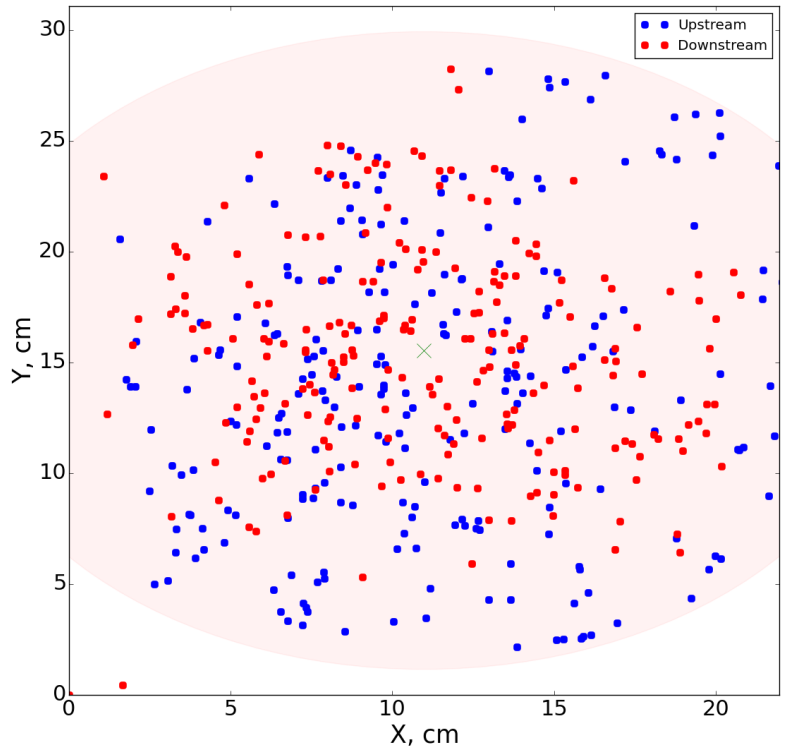

Figure : Modular cavity damage map. No discernible pattern.

Upcoming work

- Replace RF seals
  - Cu seals shipping from SLAC.
  - Cu seals are reasonably rigid but can be deformed if handled badly.
  - Care must be taken when manipulating upstream end plate. Access is possible but tight.
- Prep for $B > 0$ run
  - Determine optimum magnetic field
  - Load cavity / WG assembly into magnet
- Calibration party
  - We need to re-check cable attenuation, signal timing before the next run.
- Restart regular analysis meetings!
  - We've been busy making measurements but we need to keep up with analysis requirements.
  - Weekly (and more frequent) meetings were the norm several months ago. Let's get back in that habit.

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