BNL Magnet Division Tasks for Next Quarter

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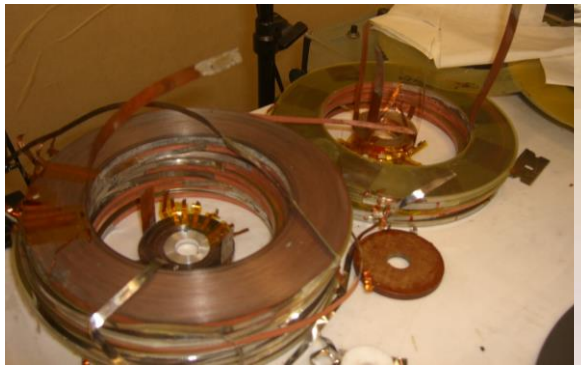
Specific Tasks for Next Quarter

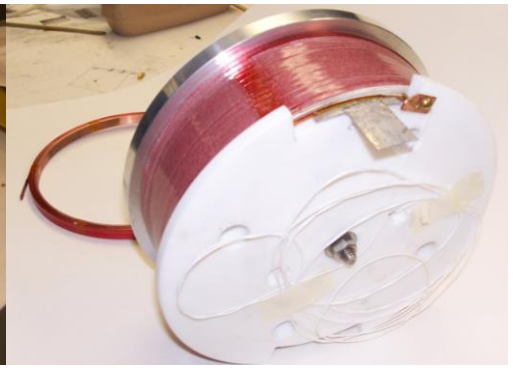
- **Devise detailed work plan – identify challenges**
- **Put team together – explain motivation and goals**

- **Start with test coil winding and associated tooling**
- **Start detailed engineering design**
- **Advanced quench protection system**

Test Coil Winding

- **Double pancake to avoid joints at coil i.d. in high field area.**
- **Make special coil winding mandrel, program coil winding machine, wind and test first small coil ASAP with same i.d. but fewer turns.**
- **Use new 12 mm HTS tape from SuperPower with 100 micron copper (should be very similar to that what will be used in real coils).**





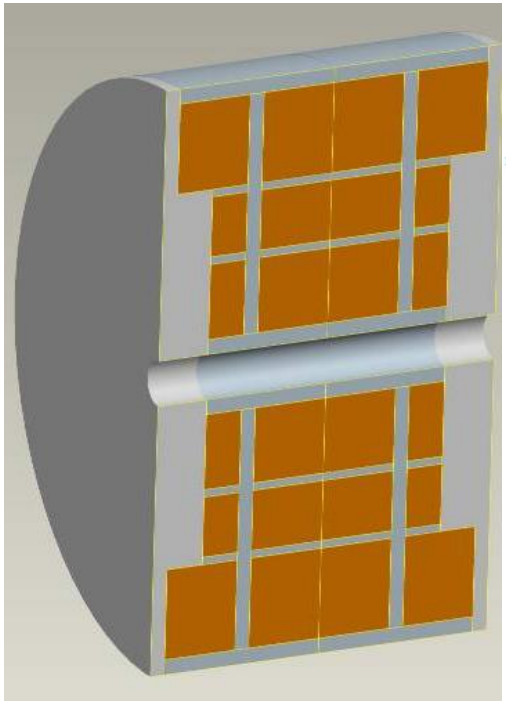
Advanced Quench Protection and Energy Extraction System

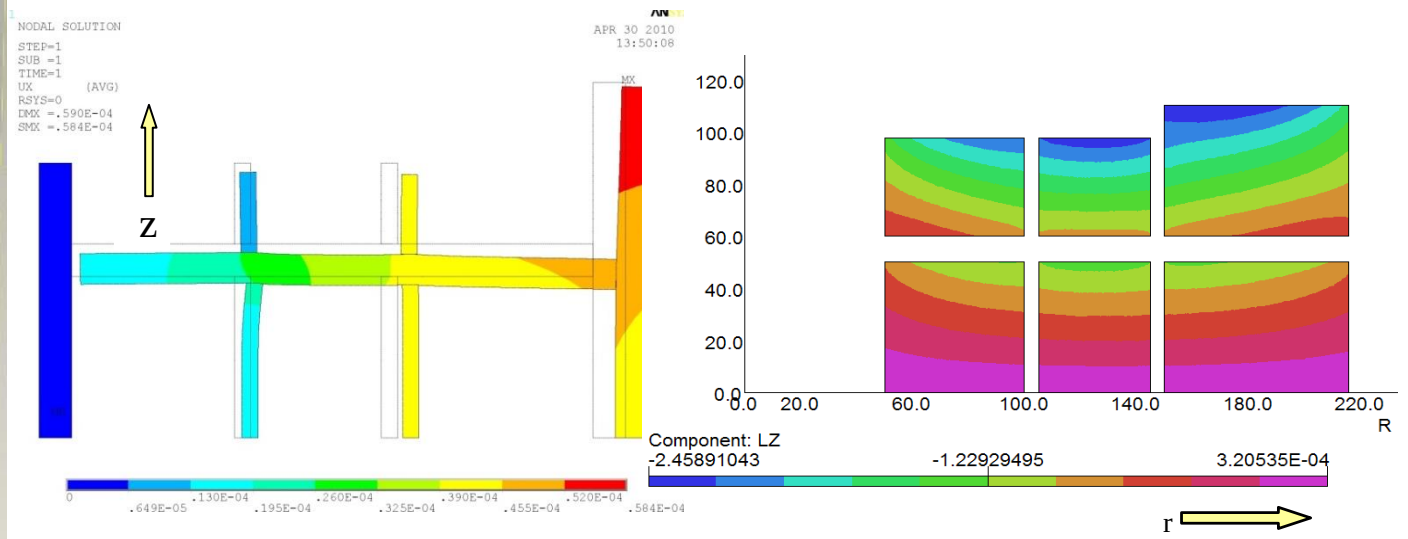
Ambitious target:

- **Develop electronics to detect resistive voltage signal < 1 mV despite large inductive and noise voltage.**
- **It should be fast, take special care to reduce noise and it should be able to work with large inductive voltage.**
- **It goes together with energy extraction system.**
- **Coil design goes together with quench protection**

Detailed Engineering Design

- This is one of the most critical part in developing a successful high field magnet. This also drives the fabrication of various parts which may take time.





Summary

- **First quarter tasks are well defined.**
- **A team of world expert engineering, scientific and technical staff is put in place and ready to go.**
- **We start floor activity right from the beginning and do first small coil test as soon as possible.**