**Rotating coil measurement system design review**

**Goals and Charge**

In preparation for Q1/Q3 cryo-assemblies horizontal test we are building new rotating coil based magnetic measurement system. Measurements of a 36ft long cryo-assembly with two MQXFA magnets inside is a challenging task. Dedicated probe motion system is developed for harmonics measurements along the magnetic length of the magnet. Long signal and probe drive cables for the rotating coil system also require a dedicated support system – the cable spooler.

The goal of this internal review is to assess the rotating coil system design, including the probe motion system and the cable spooler.

The reviewers are requested to answer the following questions:

* Are the rotating coil measurement system requirements well defined and technically achievable?
* Are the rotating coil system hardware and software components adequate for the proposed measurement system requirements?
* Are the probe motion and cable spooler hardware adequate for the horizontal magnetic measurements at stand 4?
* Are there any significant risks associated with the rotating coil system development?

Brief close-out presentation is expected after the review meeting, while a written report is expected within one week.

**Committee**

K. Badgley, G. Velev (chair) and S. Krave

**Date and Time**

June 8th, 2018 starting 9:30 am

**Location/Connection**

IB1 conference room

**Link to talks and agenda:**

<https://indico.fnal.gov/event/17234/>