

RICH Collaborator Meeting

Date: November 5, 2021

Time: 9:30 AM – 11:30 PM

Attendees: Fatiha Benmokhta, Marco Contalbrigo, Valery Kubarovsky, Tyler Lemon, Marco Mirazita, Connor Pecar, and Patrizia Rossi

1. INFN in discussions with JLab to arrange INFN staff coming to JLab for RICH-II assembly

1. Ideally, INFN staff will be able to come to JLab in the late fall/early winter to assist with assembly
 - Any INFN staff coming from Italy will be fully vaccinated against COVID-19

2. Aerogel

1. All aerogel tiles for RICH-II should be at JLab.

3. Spherical mirrors

1. Discussions regarding mirror quality in process between CMA and INFN
 - CMA is looking over data acquired during d0 tests and reviewing their process for fabricating mirrors.
 - CMA developing proposal on how to proceed with RICH mirrors
 - While mirrors are close to specification, CMA wants the mirrors to be better than specification
2. Background analysis using data acquired last week from covered CCDs
 - Covered CCDs are in the darkest possible conditions
 - Data from covered CCDs and data from when CCDs were uncovered and light source turned off (how background for d0 measurements were taken) are comparable
 - Indicates that cleanroom is dark enough and pixel counts induced by ambient light are below the level of the CCD measurements' noise
 - Second CCD has an overall lower background level
 - Average counts with second CCD of ~150 vs ~200 with first CCD
 - Second CCD will be used for all d0 measurements moving forward
 - Discussed possible procurement of new CCDs from Ximea
 - Tyler Lemon has requested a quote from Ximea on a new CCD
 - From procurement of previous CCDs, collaborators estimated that a new one will cost ~\$2k.