

Paper status 1

Problems with Fig. 8

Single radiator (downstream) sigma is worse than the combined radiator sigma, combined radiator is only slightly worse than the upstream radiator.

Expect: Double radiator sigma closer to the downstream radiator (in the double rad. case 70% of photons come from the downstream tile).

Paper status 2

Samo made a comparison of the RICH1 and RICH2 runs, and also analyzed several RICH1 runs with the same radiator tile combination. Results can be found at

<http://www-f9.ijs.si/~korpar/aerorich/bt04.html>

RICH2 studies: as expected, double radiator sigma close to downstream sigma (slightly better).

RICH1 studies: large differences between the runs

sigma(r):

Dual 3.22mm (used in fig 8), 3.36mm, 3.43mm

Upstream: 3.00mm, downstream: 3.46mm

<http://www-f9.ijs.si/~korpar/aerorich/bt04.html>

RUN #							AEROGEL	
<u>161</u>	15.7	312	3.46	63.8	7.82	0.73	MD(4+5)	R I C H 1
<u>164</u>	13.7	304	3.00	62.1	7.18	0.44	MD(6+9)	
<u>169</u>	14.7	304	3.22	61.9	10.28	1.07	MD(4+5+6+9)	
<u>213</u>	15.3	308	3.36	63.0	10.11	1.12	MD(4+5+6+9)	
<u>255</u>	15.6	310	3.43	63.4	10.02	1.13	MD(4+5+6+9)	
<u>116</u>	14.6	308	3.18	62.9	10.30	1.31	MD(2+3+6+9)	
<u>133</u>	13.2	296	2.93	61.8	1.75	0.07	MD(4+5)	R I C H 2
<u>136</u>	11.9	298	2.63	62.2	1.64	0.05	MD(6+9)	
<u>140</u>	13.7	297	3.04	62.0	2.30	0.16	MD(4+5+6+9)	
<u>206</u>	13.6	293	2.97	60.2	2.17	0.18	MD(4+5+6+9)	

Paper status 3

Possibilities why the RICH1 measurement could be different:

-Single radiator is actually made of two pieces, if they were put together in a different way (upstream/downstream), we could have the focusing/ defocusing effect.

Conclusion: not all conditions of the single radiator measurement are known. The downstream measurement in the momentum scan sample is not consistent with the expectations, with other measurements with RICH1 and with RICH2 measurement.

My proposal: we do not use the downstream data in Fig 8.