

From Silvia Dalla Torre

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Subject **RTIC meeting 9/11, 2023 - main outcome**

Dear Colleagues,

the TIC meeting on September 11, 2023, dedicated to cooling and FEE-ASICs (discussed: ALCOR, FCFD) has been highly informative and we are grateful to the speakers for the rich and carefully reports (reference to the slides for the information).

Points of attention resulting from the meeting are:

1. about cooling

- The initial proposal by the project to use under-pressure water cooling with Cu pipes has received some warning comments: pipe corrosion, formation of salts in the pipe, material budget (delicate, in particular, for vertexing).
- Georg Viehhauser has suggested the usage of evaporative cooling.
- The need of cooling with very light material budget impact for vertexing has been underlined by presenting studies for air cooling.
- dRICH has presented a preliminary concept for both SiPM cooling and read-out electronic cooling. The need of support for engineering calculation of heat flow studies in the region electronics-SiPMs-radiator gas vessel with quartz windows has been underlined. Support by project engineers possible ?

2. about FEE-ASICs

- The various number of different versions of the HGCROC/EICROC needed for the ePIC subdetectors remains a concern (requiring workforce to a single group of developers). In this context, the potential use of FCFD remains an interesting options. The need to formalize this potential in-kind contribution from FNAL has been underlined.

Best greetings, Silvia