

## Cooling of FPCCD vertex detector for ILD

*Tuesday, 24 April 2012 12:00 (30 minutes)*

FPCCD vertex detector will be operated at -40C in order to minimize the effect of radiation damage. The power consumption inside the cryostat may exceed 50W. Therefore, an effective cooling system is necessary for the FPCCD vertex detector. We plan to use 2-phase CO<sub>2</sub> for the coolant of the vertex detector. We would like to present an idea of FPCCD vertex detector cooling system and the recent study results on the cooling system using 2-phase CO<sub>2</sub>.

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**Session Classification:** ACFA Trackers