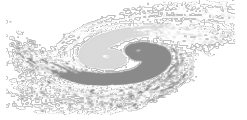
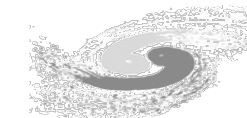


Summary of the recent progress



- **Thursday meeting indico: <https://indico.ihep.ac.cn/event/23828/>**
- **Discussion on Electronics Room**
 - Area was decided on CEPC Day Meeting to be $500\text{m}^2 \times 2$ floors
 - The height of each floor to be 5m after the discussion:
 - 2.4m of a rack, 1m for the cable trench, 1.6m for the cooling pipe & cooling height
 - Total size: $500\text{m}^2 \times 5\text{m} \times 2$ floors
- **Discussion on saving the power crates:**
 - To customize two types of power crates: 100W/ch @ 48ch/crate, and 40W/ch @ 96ch/crate
 - Keep the strategy of “one fiber one power cable” for each module
 - Depend on detailed power per module for different sub-det, for the correspond type of power crate
 - Power crate saved by 1/2: ITK, ECAL, HCAL
 - Update the strategy for HCAL module, by sharing one ASIC chn for 4 SiPMs
 - Module power saved from 87W -> 22W
 - Waiting for the detail design of Muon Detector
 - Now the avg. power density of a power crate is ~2kW, at a relatively high level

Summary table



Detector	Max data rate per fiber (Gbps)	Fibers per module	Fiber sum	BEE sum	Data crate sum	Module Max Power (W)	Total Power (kW)	Power channels	Power crate sum	HV requirements	HV channels sum	HV crates sum	Trg boards sum	Trg crates sum	Comment
VTX	8	1~2	88	6	1	25	0.45	66	2	~-10V	66	1			
TPC	0.1	1	496	32	4	42	20	496	6	SHV	496	4			
ITK-Barrel	0.96	1	2204	139	14	11.2	31.59	2204	29	50~200 V	2204	10			
ITK-EndCap	2.2	1	1696	106	12	7.4	11.1	192	2	50~200 V	1696	8			
OTK-Barrel	1.4	1	540	34	4	56.3	251.1	3780	79	150~200 V	3780	17			
OTK-EndCap	0.7	1	720	45	6	58.9	35.6	720	16	150~200 V	720	4			Not finalized
ECAL-Barrel	4.8	2	960	60	6	30	17.5	480	5	40~60V	480	2			
ECAL-EndCap	?	2	520	34	4	30	9.5	260	4	40~60V	260	2			Not finalized
HCAL-Barrel	?	1	5536	346	36	9	66.1	5536	58	40~60V	5536	26			Not finalized
HCAL-EndCap	?	1	1536	96	10	21.9	41.3	1536	16	40~60V	1536	32			Not finalized
Muon-Barrel	?	1	192	12	2	2.54	0.49	192	2	40~60V	192	1			No Det scheme
Muon-EndCap	?	1	128	8	2	3.84	0.38	128	4	40~60V	128	2			No Det scheme
Sum			14616	918	101		485.11	15590	223		17094	109			