

CEPC Silicon Tracker TRD撰写 (3)

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上周的任务安排

5.1	Requirements	
5.2	Overview of ITK and OTK	(g)
5.3	Inner silicon tracker (ITK)	
5.3.1	CMOS chip R&D	
5.3.1.1	HV-CMOS pixel R&D	(b)
5.3.1.2	CMOS strip R&D	(c)
5.3.2	ITK design	(a)
5.3.3	Readout electronics	(f)
5.3.4	Mechanical and cooling design	(a)
5.3.5	Prospects and plan	
5.4	Outer silicon tracker (OTK) with TOF	
5.4.1	AC-LGAD sensor and ASIC R&D	
5.4.1.1	Sensor R&D	(d)(e)
5.4.1.2	ASIC R&D	(f)
5.4.2	OTK design	
5.4.3	Readout electronics	(f)
5.4.4	Mechanical and cooling design	(a)
5.4.5	Prospects and plan	
5.5	Performance	(g)

- 严琪: Requirements, ~~ITK 和 OTK 章节的 introduction~~, ITK design和~~OTK design~~, Mechanical and cooling design (ITK), Mechanical and cooling design (OTK) (a)
- 一鸣, 周扬: HV-CMOS pixel R&D. (b)
- 史欣: CMOS strip R&D. (c)
- 赵梅: AC-LGAD sensor R&D中sensor的发展和设计。(d)
- 樊云云: AC-LGAD sensor R&D中的sensor的测试。(e)
- 严雄波: AC-LGAD ASIC R&D, Readout electronics (f)
- 李刚: Performance, Overview of ITK and OTK (g)

上周任务的完成情况

5.1	Requirements	
5.2	Overview of ITK and OTK	(g)
5.3	Inner silicon tracker (ITK)	
5.3.1	CMOS chip R&D	
5.3.1.1	HV-CMOS pixel R&D	(b)
5.3.1.2	CMOS strip R&D	(c)
5.3.2	ITK design	(a)
5.3.3	Readout electronics	(f)
5.3.4	Mechanical and cooling design	(a)
5.3.5	Prospects and plan	
5.4	Outer silicon tracker (OTK) with TOF	
5.4.1	AC-LGAD sensor and ASIC R&D	
5.4.1.1	Sensor R&D	(d)(e)
5.4.1.2	ASIC R&D	(f)
5.4.2	OTK design	
5.4.3	Readout electronics	(f)
5.4.4	Mechanical and cooling design	(a)
5.4.5	Prospects and plan	
5.5	Performance	(g)

- 严琪: Requirements, ~~ITK~~ 和 ~~OTK~~ 章节的 introduction, ITK design和~~OTK~~ design, Mechanical and cooling design (ITK), Mechanical and cooling design (OTK) (a)
- 一鸣, 周扬: HV-CMOS pixel R&D. 10% (b)
- 史欣: CMOS strip R&D. 30% (c)
- 赵梅: AC-LGAD sensor R&D中sensor的发展和设计。(d) 0%
- 樊云云: AC-LGAD sensor R&D中的sensor的测试。(e) 0%
- 严雄波: AC-LGAD ASIC R&D, Readout electronics (f) 30%
- 李刚: Performance, Overview of ITK and OTK (g) 30%

下周的任务安排

Chapter 5 Silicon Trackers

5.1	Requirements	•	严琪: Requirements, ITK 和 OTK 章节的 introduction, ITK design 和 OTK design, Mechanical and cooling design (ITK), Mechanical and cooling design (OTK)	(a)
5.2	Overview of ITK and OTK	•		
5.2.1	Tracker system layout optimization	•		
5.3	Inner silicon tracker (ITK)			
5.3.1	CMOS chip R&D			
5.3.1.1	HV-CMOS pixel R&D	•	一鸣, 周扬: HV-CMOS pixel R&D。	10% (b)
5.3.1.2	CMOS strip R&D	•	史欣: CMOS strip R&D。	30% (c)
5.3.2	ITK design			
5.3.3	Readout electronics			
5.3.4	Mechanical and cooling design			
5.3.5	Prospects and plan	•		
5.4	Outer silicon tracker (OTK) with TOF			
5.4.1	AC-LGAD sensor and ASIC R&D			
5.4.1.1	AC-LGAD Sensor R&D			
5.4.1.2	AC-LGAD ASIC R&D	•	赵梅: AC-LGAD sensor R&D 中 sensor 的发展和设计。	0% (d)
5.4.1.2.1	General requirements			
5.4.1.2.2	ASIC architecture			
5.4.1.2.3	Single-channel readout electronics			
5.4.1.2.4	Data process and digital blocks	•		
5.4.1.2.5	Radiation tolerance			
5.4.1.2.6	Power distribution and grounding			
5.4.1.2.7	Prototype performance			
5.4.1.2.8	Monitoring			
5.4.1.2.9	Roadmap towards production	•	樊云云: AC-LGAD sensor R&D 中的 sensor 的测试。	0% (e)
5.4.2	OTK design			
5.4.2.1	OTK barrel design			
5.4.2.2	OTK endcap design			
5.4.3	Readout electronics			
5.4.3.1	Front-end board			
5.4.3.2	Concentrator card and power distribution	•	严雄波: AC-LGAD ASIC R&D, Readout electronics	30% (f)
5.4.3.3	Slow control and monitoring			
5.4.3.4	Clock distribution			
5.4.4	Mechanical and cooling design			
5.4.5	Prospects and plan			
5.5	Performance	•	李刚: Performance, Overview of ITK and OTK	30% (g)
5.5.1	The global performance of the tracking system			
5.5.2	The performance of silicon tracker (barrel)			
5.5.3	The performance of the transition zone (barrel+end-cap)			
5.5.4	The performance of forward tracking (end-cap)			