

INTERNATIONAL WORKSHOP ON
THE HIGH ENERGY PHYSICS

CEPC 2022

Oct. 24^(Mon) – 28^(Fri)

NANJING UNIVERSITY
NANJING, CHINA

The workshop intends to study the physics potentials of the CEPC, pursue international collaborations for accelerator and detector optimization, deepen R&D work of critical technologies, and develop initial plans towards Technical Design Reports (TDR).

The high energy Super proton-proton Collider (SppC), a possible upgrade of the CEPC, will also be discussed. Furthermore, industrial partnership for technology R&Ds and industrialization preparation of CEPC-SppC will be explored.

Scientific Program Committee

Franco Bedeschi	INFN/Pisa	Sven Heinemeyer	IFT/CSIC	Andreas Schopper	CERN
Nicole Bell (co-chair, theory)	U.Melbourne	Wenhui Huang	THU	Anatoly Sidorin	JINR
Maria Enrica Biagini	INFN/Frascati	Eric Kajfasz	CPM	Younguk Sohn	POSTECH
(co-chair, accelerator)		Eiji Kako	KEK	Makoto Tobiyama	KEK
Anton Bogomyagkov	BINP	Weidong Li	IHEP	Yoshinobu Unno	KEK
Daniela Bortoletto	Oxford	Jianbei Liu	USTC	(co-chair, exp.physics)	
Shikma Bressler	Weizmann	Tao Liu	HKUST	Alessandro Vicini	INFN/Milano
Qinghong Cao	PKU	Zhen Liu (co-chair, theory)	U.Minnesota	Liantao Wang	U.Chicago
Joao Guimaraes da Costa	IHEP	Bruce Mellado	U.Wits, iThemba LABS	Meng Wang	SDU
Angeles Faus-Golfe	UCLab/Orsay	Carlo Pagani	INFN/Milano	Xueqing Yan	PKU
Jie Gao (co-chair, accelerator)	IHEP	Roman Poschl	UCLab	Haijun Yang	SJTU, TDLI
Paolo Giacomelli	INFN/Bologna	(co-chair, exp.physics)		Hwidong Yoo	Yonsei U.
Christophe Grojean	DESY	Jianming Qian	U.Michigan	Frank Zimmermann	CERN
Xiaogang He	TDLI, SJTU	Michael Ramsey-Musolf	TDLI, UMass	(co-chair, accelerator)	

Local Organizing Committee

Shan Jin (Chair)	NJU	Xiaolong Wang	FDU
Yaquan Fang	IHEP	Yuehong Xie	CCNU
Xingtao Huang	SDU	Zhenwei Yang	PKU
Yongsheng Huang	SYSU	Chunxu Yu	NKU
Gang Li	IHEP	Lei Zhang	NJU
Shu Li	TDLI/SJTU	Liming Zhang	THU
Yuhui Li	IHEP	Yunlong Zhang	USTC
Ming Qi	NJU	Hongbo Zhu	ZJU
Manqi Ruan	IHEP	Huaxing Zhu	ZJU

Secretary

Sicheng Zhou	NJU
Hongjuan Xu	IHEP
Yaru Wu	IHEP



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CEPC 2022

The 2022 international workshop
on the high energy Circular
Electron-Positron Collider



Accelerator	Maria Enrica Biagini	INFN/Frascati	Theory	Michael Ramsey-Musolf	TDLI, UMass
	Anton Bogomyagkov	BINP		Alessandro Vicini	INFN/Milano
	Angeles Faus-Golfe	IJCLab/Orsay		Liantao Wang	U. Chicago
	Jie Gao	IHEP	ExperPhysics	Franco Bedeschi	INFN/Pisa
	Wenhui Huang	THU		Shikma Bressler	Weizmann
	Eiji Kako	KEK		Daniela Bortoletto	Oxford
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	Anatoly Sidorin	JINR		Paolo Giacomelli	INFN/Bologna
	Younguk Sohn	POSTECH		Eric Kajfasz	CPPM
	Makoto Tobiyama	KEK		Weidong Li	IHEP
	Xueqing Yan	PKU		Jianbei Liu	USTC
	Frank Zimmermann	CERN		Bruce Mellado	U.Wits,iThemba LABS
Theory	Nicole Bell	U. Melbourne		Roman Poschl	IJCLab
	Qinghong Cao	PKU		Jianming Qian	U. Michigan
	Christophe Grojean	DESY		Andreas Schopper	CERN
	Xiaogang He	TDLI, SJTU		Yoshinobu Unno	KEK
	Sven Heinemeyer	IFT/CSIC		Meng Wang	SDU
	Tao Liu	HKUST		Haijun Yang	SJTU, TDLI
	Zhen Liu	U.Minnesota		Hwidong Yoo	Yonsei Univ.



	Sessions		Blk	Conveners
1	Acceler.	Global & beam dynamics	12	Maria Enrica Biagini (INFN/Frascati), Anton Bogomyagkov (BINP), Jie Gao (IHEP), Frank Zimmermann (CERN)
2		Accelerator technology		Eiji Kako (KEK), Anatoly Sidorin (JINR), Makoto Tobiyama (KEK), Carlo Pagani (INFN/Milano)
3		Novel accelerator concept		Angeles Faus-Golfe (IJCLab/Orsay), Wenhui Huang (THU), Younguk Sohn (POSTECH), Xueqing Yan (PKU)
4	CIPC		3	Jie Gao (IHEP), Jinling Gao(Fuhai Cryo), Song Jin(IHEP), Yaru Wu(IHEP)
5	Physics	Higgs	3	Yaquan Fang(IHEP), Sven Heinemeyer (IFT/CSIC), Tania Robens(IRB), Yahya Tayalati(UM5)
6		EW & tt	2	Zhijun Liang(IHEP), Xiaohu Sun(PKU), Alessandro Vicini (INFN/Milano), Marcel Vos(IFIC/UV)
7		Flavor physics	3	Lorenzo Calibbi(NKU), Lingfeng Li(U.Brown), Tao Liu (HKUST), Liming Zhang(THU)
8		QCD	2	Xuan Chen(UZH), Deepak Kar(U.Wits), Liantao Wang (U.Chicago), Huaxing Zhu(ZJU)
9		BSM	2	Yu Gao(IHEP), Fapeng Huang(SYSU), Bruce Mellado (U.Wits, iThemba LABS), Xuai Zhuang(IHEP)
10		Performance	1	Emanuele Bagnaschi(CERN), Gang Li(IHEP), Shu Li(SJTU,TDLI), Jianming Qian (U.Michigan)
11	Detector +	MDI & integration	2	Sha Bai(IHEP), Manuela Boscolo(INFN/Frascati), Ivanka Bozovic(VINCA), Suen Hou(IPAS), Quan Ji(IHEP), Hongbo Zhu(ZJU)
12		Silicon detector	3	Kazu Akiba(NIKHEF), Massimo Caccia(U.Insubria), Harald Fox(U.Lancaster), Stefano Panebianco(IRFU), Meng Wang (SDU)
13		Calorimeter	3	Jean-claude Brient(LLR), Gabriella Gaudio(INFN/Pavia), Yong Liu(IHEP), Hwidong Yoo (Yonsei U.)
14		Gaseous detector	2	Shikma Bressler (Weizmann), Franco Grancagnolo(INFN/Lecce), Imad Laktineh(IP2I), Huirong Qi(IHEP)
15		PID & other detectors	3	Manqi Ruan(IHEP), Xiaolong Wang(FDU), Linghui Wu(IHEP), Jingbo Ye(SMU)
16		TDAQ & Online	2	Paolo Durante(CERN), Martino Gagliardi(U.Torino), Fabrice Le Goff(CERN), Zhenan Liu(IHEP)
17		Offline & Software	2	Nicola de Filippis(INFN/Bari), Frank Gaede(DES Y), Xingtao Huang(SDU), Weidong Li (IHEP)
18		Posters	2	Mingyi Dong(IHEP), Yiming Li(IHEP), Dou Wang(IHEP), Hongjuan Xu(IHEP), Shan Zeng(IHEP)

The Local Organizing Committee

Workshop Local Organizing Committee			
Shan Jin (chair)	NJU	Xiaolong Wang	FDU
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Yuhui Li	IHEP	Yunlong Zhang	USTC
Ming Qi	NJU	Hongbo Zhu	ZJU
Manqi Ruan	IHEP	Huaxing Zhu	ZJU
Workshop Secretaries			
Sicheng Zhou	Hongjuan Xu	Yaru Wu	

and many others who support at the backstage



		Monday 24th				Tuesday 25th			Wednesday 26th			Thursday 27th				Friday 28th		
Morning	10:00 - 12:00	Higgs	Silicon	Accelerator	CIPC	Flavor	Calorim.	Accelerator	EW+tt	Gaseous	Accelerator	QCD	PID+other	Accelerator		Perform.	Offline	MDI
	12:00-13:30	Lunch break				Lunch break			Lunch break			Lunch break				Lunch break		
Afternoon	13:30-15:30	Higgs	Silicon	Accelerator	CIPC	Flavor	Calorim.	Accelerator	EW+tt	Gaseous	Accelerator	BSM		Accelerator	TDAQ		Offline	MDI
	15:30-16:00	Coffee break				Coffee break			Coffee break			Coffee break				Coffee break		
	16:00-18:00	Higgs	Silicon	Accelerator	CIPC	Flavor	Calorim.	Accelerator	QCD	PID+other	Accelerator	BSM	PID+other	Accelerator	TDAQ	Posters		
	18:00-20:00	Dinner				Dinner			Dinner			Dinner				Dinner		
Evening	20:00-21:30	Plenary							Posters							Plenary		
	21:30-22:00	Coffee break														Coffee break		
	22:00-23:30	Plenary														Plenary		



- ❖ Break the record of participations:
 - Total registrants: 425 from 28 countries, domestic: 278 (~65%).
 - There are 285 talks, 38 posters.

- ❖ More interesting features have added to the program.
 - Combining abstract submissions and conventional invitations: 50 talks and all 38 posters are chosen from the abstract submission.
 - Topical reviews in the parallel sessions, which are well received.
 - A very enjoyable poster session, thanks to (*Yizhou Zhang, Jiaqi Shen, Chuang Li, Weishan Hu*) for setting up the workshop “Gather town” environment, thanks to all voting committee members.



Zone C - Carimeter

Welcome to CEPC 2022!

Presenter	Title of the Poster
Tao Chen	Spin resonance free booster for future 100 km-scale circular e+e- colliders
Xiaozhong Huang	Quantum GAN for fast shower simulation
Kyuyeong Hwang	Study on energy resolution of the dual-readout calorimeter for future e+e- colliders using GEANT4 simulation and the first test-beam
Dongwoon Kim	High granularity SiPM channels for the first test beam of the dual-readout calorimeter for future e+e- colliders
Meng Li	Problems and considerations about the injection philosophy and timing structure for CEPC
Mengyao Liu	CEPC drift chamber track finding algorithm
Zhefei Tian	Cluster counting algorithm based on machine learning
Dou Wang	CEPC cost model study and circumference optimization
Feng Wang	Fully automatic high-precision assembly of silicon detector module



**Thank you for participating
the CEPC2022 workshop**

**See you all in person
at the next workshop**