

# THE 2019 INTERNATIONAL WORKSHOP ON THE HIGH ENERGY CIRCULAR ELECTRON POSITRON COLLIDER

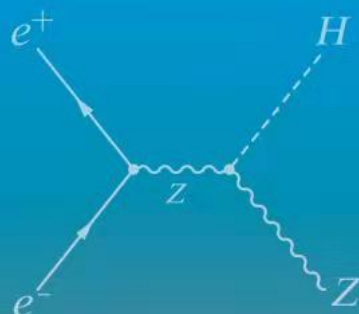
November 18-20, 2019

Institute of High Energy Physics, Beijing, China

<https://indico.ihep.ac.cn/event/9960>

## Scientific Program Committee

Paolo Giacomelli (co-chair), INFN  
Jianchuan Wang (co-chair), IHEP  
Franco Bedeschi, INFN  
Maria Enrica Biagini, INFN  
Daniela Bortoletto, Oxford  
Shikma Bressler, Weizmann  
Joel Butler, FNAL  
Nathaniel Craig, UCSB  
Sarah Eno, U. Maryland  
Angeles Faus-Golfe, LAL  
Jie Gao, IHEP  
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Sven Heinemeyer, IFT/IFCA  
Suen Hou, IPAS  
Shan Jin, NJU  
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Weidong Li, IHEP  
Michelangelo Mangano, CERN  
Dave Newbold, RAL  
Carlo Pagani, Milano  
Maxim Perelstein, Cornell  
Jianming Qian, U. Michigan  
Qing Qin, IHEP  
Aurora Savoy-Navarro, IRFU-CEA  
Makoto Tobiya, KEK  
Chris Tully, Princeton  
Liantao Wang, U. Chicago  
Frank Zimmermann, CERN



## Local Organizing Committee

Gang Li (co-chair), IHEP  
Manqi Ruan (co-chair), IHEP  
Jianchun Wang (co-chair), IHEP  
Qinghong Cao, PKU  
Xin Chen, THU  
Yaquan Fang, IHEP  
Jibo He, UCAS  
Song Jin, IHEP  
Haibo Li, IHEP  
Zhijun Liang, IHEP  
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Xin Shi, IHEP  
Meng Wang, SDU  
Yuehong Xie, CCNU  
Haijun Yang, SJTU  
Chunxu Yu, NKU  
Hao Zhang, IHEP  
Huaqiao Zhang, IHEP  
Lei Zhang, NJU  
Yujie Zhang, BUAA  
Hongbo Zhu, IHEP  
Huaxing Zhu, ZJU

### Conference secretaries:

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Mali Chen  
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## **I. About the CEPC**

**We appreciate your participation to International Workshop on High Energy Circular Electron Positron Collider (CEPC) in Beijing on Nov 18-20, 2019.**

The International Workshop on the CEPC aims at gathering scientists around the world to study the Circular Electron Positron Collider (CEPC) as a Higgs factory. The focuses will be the measurement of the Higgs properties with high precision, probing new physics through the Higgs boson, to study the full spectrum of the physics cases, to report on the conceptual design of the CEPC accelerator and the detector, as well as the simulation studies and the R&D of critical technologies. The possible upgrade path of the CEPC, including a high energy Super proton-proton Collider (SppC), will be explored.

One main purpose of the workshop is to make the CEPC study much more international by having broad participation and contributions globally, and to elevate the CEPC study group to an international organization.

## II. Conference WiFi Access

### WIFI CONNECTION (Nov 18-20)

#### Conference ID: CEPCWS2019

The easiest way is to use eduroam network if you have it setup on your devices. If not, you can connect through the IHEP WiFi: select either IHEP or IHEP-5G network, you will be directed to a page (<http://network.ihep.ac.cn>) with information in both Chinese and English, select "Meeting Code" under the "Select User Type", check the user agreement at the bottom, then continue and enter the conference ID "CEPCWS2019", you should be connected to the network.

The screenshot shows a web form titled "网络接入申请单 - Step 1 of 4". It features a progress bar with four steps: 1. 选择用户类型 (Select User Type), 2. 用户验证 (User Validation), 3. 接入申请 (Access Request), and 4. 完成申请 (Complete application). The current step is "选择用户类型 (Select User Type)".

Below the progress bar, there is a heading "选择用户类型 (Select User Type)" and a link: "如果您之前有提交过非参会网络接入申请, 可以点击此链接查看处理进度。 If you have previously submitted a non-participation network access application, you can click this link to view the progress of the process." A note in red text states: "注: 选择前两种申请类型, 个人信息必须在高能所人力资源系统中。点击此处, 输入姓名查询, 如果没查到, 请联系人资处(职工)或教育处(学生), 把你加入到我们人力资源系统中。 Note: Selecting the first two application types, personal information must be in the HR system of the Institute. Click here, enter your name query, if you don't find it, please contact the Human Resources Department(employee) or the Education Department (student) to add you to our HR system." There are four radio button options: 1. 本所职工与本所学生 (Staff of IHEP) with a "必要条件" (Necessary condition) tag; 2. 客座、外聘、联合培养学生 (Guest, external, joint training of students) with a "必要条件" tag; 3. 短期来访 (有效时间为两周, 如需要更长时间网络服务, 请选择其他类型) (Visitor); 4. 有会议代码 (Meeting Code), which is selected. At the bottom, there is a checkbox for "我已阅读并同意遵守《高能所网络环境使用条例》, 查看协议" (I have read and agree to abide by the High Energy Institute Network Environment Regulations, view the agreement).

A "继续 (Continue)" button is located at the bottom right of the form.

You may also connect with the IHEP WiFi via scanning the QR Code:



**WARNING:** Gmail/Google/Facebook etc is blocked in China, you can use ssh tunnel for accessing them, see instruction at <https://drewsymo.com/2016/05/09/ssh-tunnel-in-30-seconds-mac-osx-linux/> You can setup to forward messages from Gmail to CERN mail server which is accessible in China.

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### III. Committees

#### **CEPC International Advisory Committee (IAC):**

Young-Kee Kim (Chair), University of Chicago  
Barry Barish, Caltech  
Hesheng Chen, IHEP  
Michel Davier, LAL  
Brian Foster, DESY/U. Hamburg  
Rohini Godbole, CHEP, Bangalore  
David Gross, UC Santa Barbara  
George Hou, Taiwan U  
Peter Jenni, CERN & Albert-Ludwigs-University Freiburg  
Eugene Levichev, BINP  
Lucie Linssen, CERN  
Joe Lykken, Fermilab  
Luciano Maiani, U. Rome  
Michelangelo Mangano, CERN  
Hitoshi Murayama, IPMU/UC Berkeley  
Tatsuya Nakada, EPFL  
Katsunobu Oide, KEK  
Robert Palmer, BNL  
John Seeman, SLAC  
Ian Shipsey, Oxford  
Steinar Stapnes, CERN  
Geoffrey Tayler, U. Melbourne  
Henry Tye, IAS, HKUST  
Hendrik J. (Harry) Weerts, ANL

#### **Scientific Program Committee:**

Paolo Giacomelli (co-chair)	INFN	Suen Hou	IPAS
Jianchun Wang (co-chair)	IHEP	Shan Jin	NJU
Franco Bedeschi	INFN	Ivan Koop	BINP
Maria Enrica Biagini	INFN	Weidong Li	IHEP
Daniela Bortoletto	Oxford	Michelangelo Mangano	CERN
Shikma Bressler	Weizmann	Dave Newbold	RAL
Joel Butler	FNAL	Carlo Pagani	Milano

Nathaniel Craig	UCSB	Maxim Perelstein	Cornell
Sarah Eno	U.Maryland	Jianming Qian	U.Michigan
Angeles Faus-Golfe	LAL	Qing Qin	IHEP
Jie Gao	IHEP	Aurore Savoy-Navarro	IRFU-CEA
Yuanning Gao	PKU	Makoto Tobiyama	KEK
Sebastian Grinstein	IFAE/ICREA	Chris Tully	Princeton
Joao Guimaraes da Costa	IHEP	Liantao Wang	U.Chicago
Sven Heinemeyer	IFT/IFCA	Frank Zimmermann	CERN

### Local Organizing Committee (LOC):

Gang Li (co-chair)	IHEP	Xin Shi	IHEP
Manqi Ruan (co-chair)	IHEP	Meng Wang	SDU
Jianchun Wang (chair)	IHEP	Yuehong Xie	CCNU
Qing-Hong Cao	PKU	Haijun Yang	SJTU
Xin Chen	THU	Chunxu Yu	NKU
Yaquan Fang	IHEP	Hao Zhang	IHEP
Jibo He	UCAS	Huaqiao Zhang	IHEP
Song Jin	IHEP	Lei Zhang	NJU
Haibo Li	IHEP	Yujie Zhang	BUAA
Zhijun Liang	IHEP	Hongbo Zhu	IHEP
Jianbei Liu	USTC	Huaxing Zhu	ZJU

### Parallel session conveners:

CIPC	Jie Gao (IHEP)
Accelerator	Maria Enrica Biagini (INFN), Angeles Faus-Golfe (LAL), Jie Gao (IHEP), Makoto Tobiyama (KEK), Frank Zimmermann (CERN)
Higgs	Jorge de Blas (INFN/Padua), Yaquan Fang (IHEP), Zhen Liu (U. Maryland), Bill Murray (RAL/Warwick)
EW	Paolo Azzurri (INFN/Pisa), Sven Heinemeyer (IFT/IFCA), Ashutosh Kotwal (Duke), Zhijun Liang (IHEP)

Flavor	Wolfgang Altmannshofer (UCSC), Elisabetta Barberio (Melbourne), Haibo Li (IHEP), Wenbin Qian (UCAS)
QCD	Qinghong Cao (PKU), Liantao Wang (U.Chicago), Huaxing Zhu (ZJU)
Beyond Standard Model	Yuri Gershtein (Rutgers), Hao Zhang (IHEP)
Gas detector	Franco Grancagnolo (INFN/Lecce), Huirong Qi (IHEP), Leszek Ropelewski (CERN)
Silicon detector	Anna Macchiolo (Zurich), Qun Ouyang (IHEP), Meng Wang (SDU)
Calorimeter	Jean-Claude Brient (LLR), Sarah Eno (U.Maryland), Yong Liu (IHEP), Haijun Yang (SJTU)
MDI, magnet & integration	Sha Bai (IHEP), Manuela Boscolo (INFN/Frascat), Suen Hou (IPAS), Quan Ji (IHEP), Chenghui Yu (IHEP), Hongbo Zhu (IHEP)
Cost-performance optim.	Jianming Qian (U Michigan)
Performance	Jianbei Liu (USTC), Manqi Ruan (IHEP)
TDAQ & online	Federico Alessio (CERN), Zhenan Liu (IHEP), Stewart Martin-Haugh (RAL)
Offline & software tools	Tommaso Boccali (INFN/Pisa), Gang Li (IHEP), Weidong Li (IHEP), Shengsen Sun (IHEP)

## Workshop Secretaries:

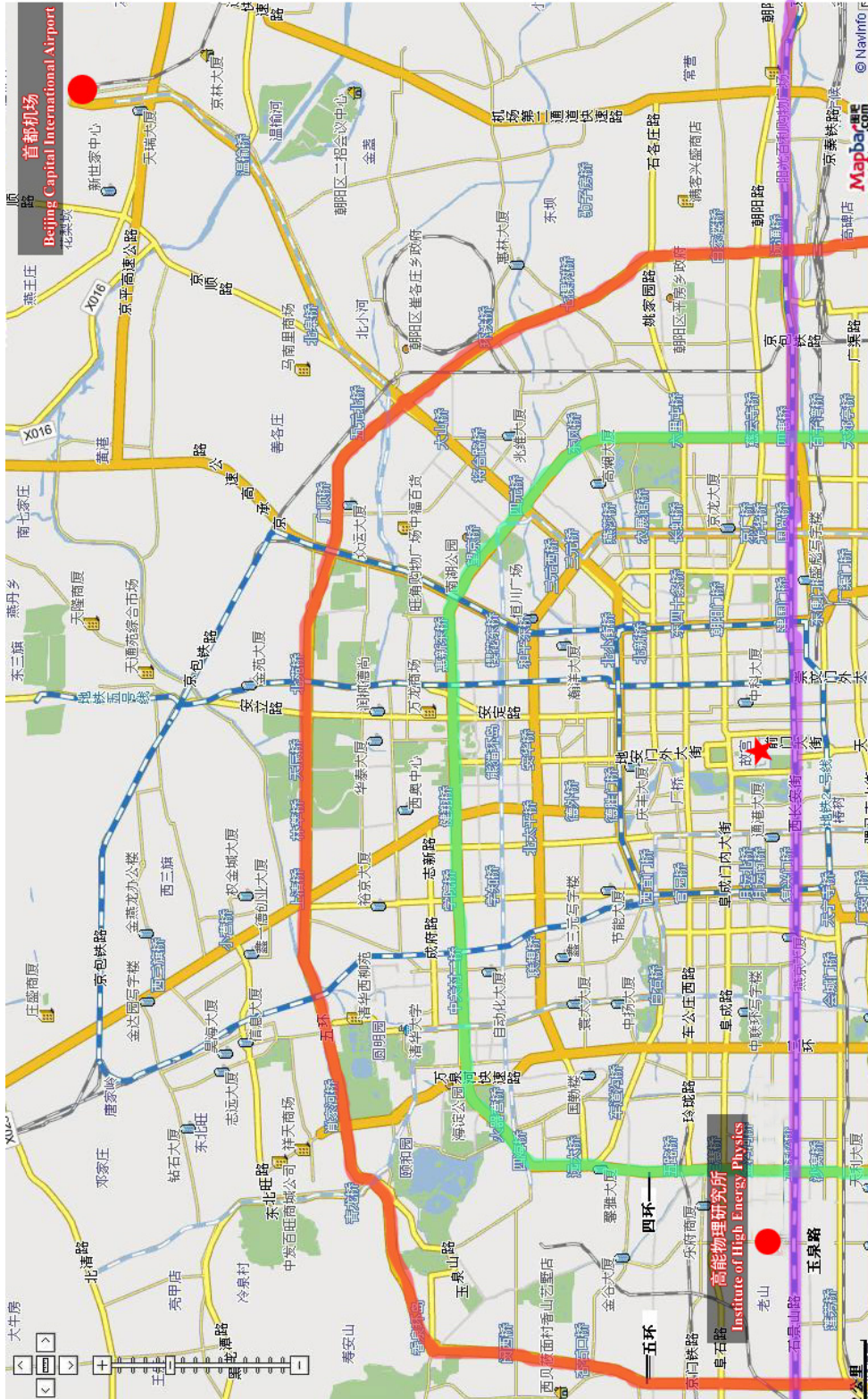
Mali Chen (86)-010-88236046, (86)13521783366, chenml@ihep.ac.cn

Yaru Wu (86)-010-88235843, (86)18510900198, wuyaru@ihep.ac.cn

## IV. General Information

**LOCATION:** 19B Yuquan Road, Shijingshan District, Beijing, China  
北京市石景山区玉泉路19号乙

### IHEP in relation to Beijing Capital International Airport

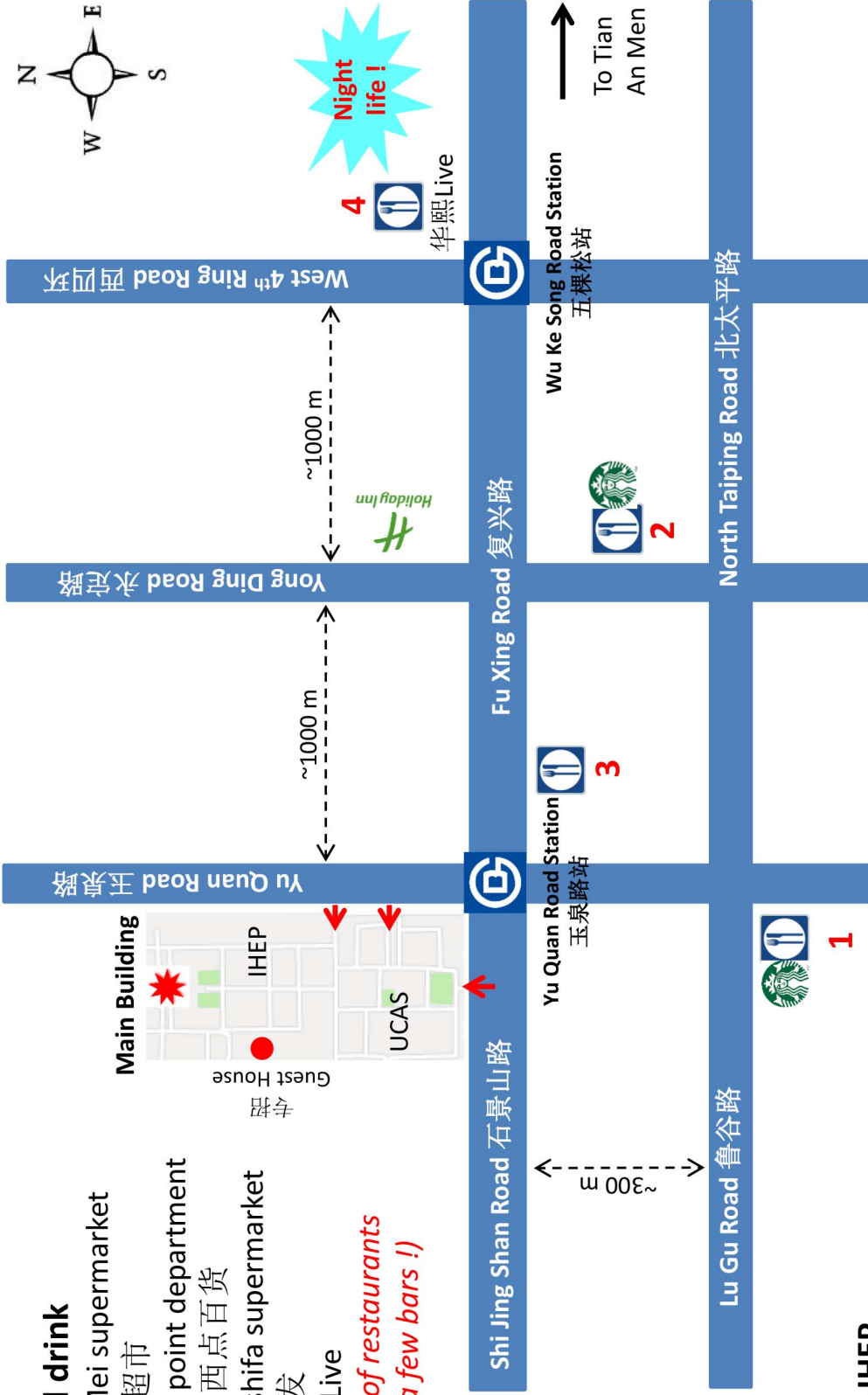




# Area around IHEP and Holiday Inn

## Food and drink

- 1: Wu Mei supermarket  
物美超市
- 2: West point department store  
西点百货
- 3: Chaoshifa supermarket  
超市发
- 4: 华熙Live  
*(Lots of restaurants and a few bars !)*



## To IHEP

By subway: Line 1 to Yu Quan Road station, take Exit A2, follow one of the small red arrows on the map, a 10 minute walk to the main building

By foot from the Holiday Inn: a ~25 minute walk

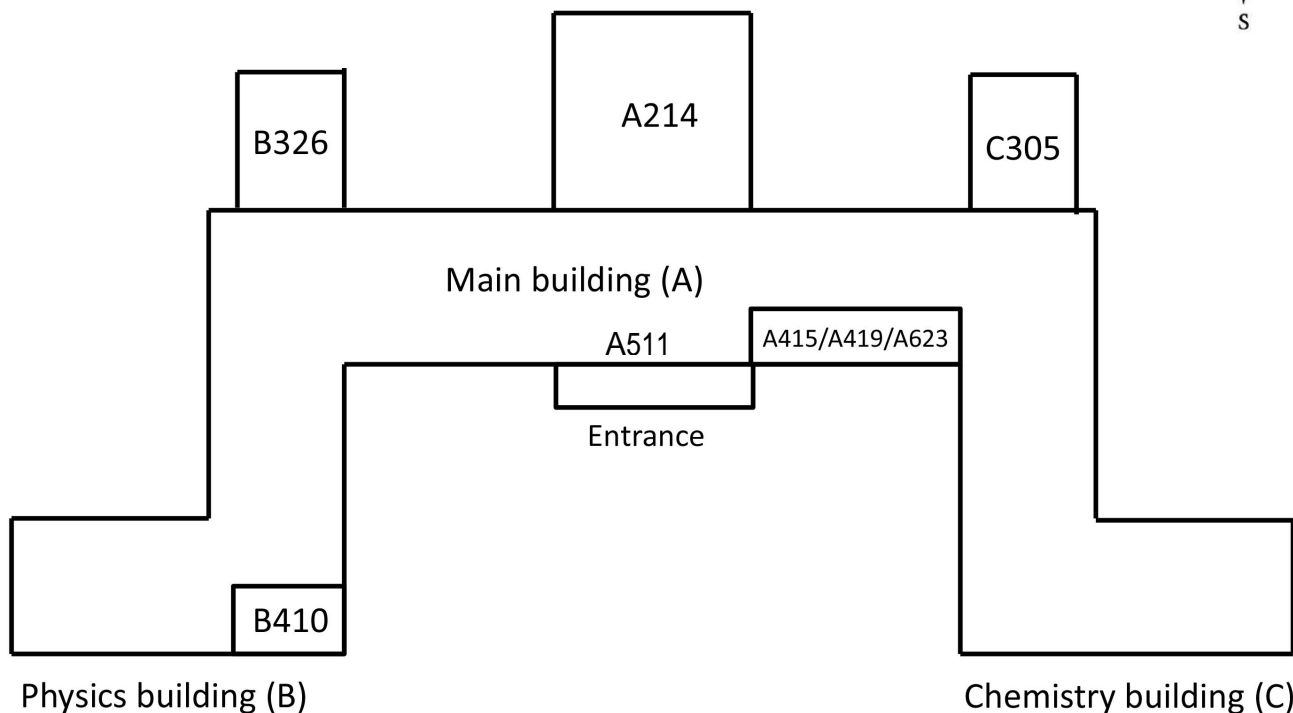
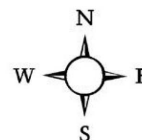
**To 华熙Live** by subway: Line 1 to Wu Ke Song Road Station, take Exit B1.



**REGISTRATION DESK:**

- A214, Mainbuilding, IHEP
- Nov.17 (Sunday) at 3:00 -5:00 PM ; Nov. 18(Monday) at 8:00 – 8:30 AM

高能所主楼平面图  
IHEP Main Building



- Notes: A214                    2nd floor  
C305/B326                3rd floor  
B410/A415/A419        4th floor  
A511                        5th floor  
A623                        6th floor

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## **LUNCH, RECEPTION and BANQUET**

**Lunch:** The IHEP Expert Restaurant supplies buffet at lunch time. (only for non-IHEP participants)

**Reception:** 18:30-21:00, Nov 18th (Monday),

**Site:** Lobby of the new building of IHEP (多学科大楼一层)

**Banquet:** Tuesday, Nov 19th, 19:00-21:00, TianHeSheng Restaurant

(北京市丰台区小瓦窑小屯路 4 号——天和晟京味酒楼 (玉泉路店) 010-68698188)

All of participants can go there by the shuttle at 18:40 pm in front of the IHEP Main building.

Banquet Shuttle Bus:

IHEP ➡ TianHeSheng Restaurant : 18:40 main building

TianHeSheng Restaurant ➡ IHEP/Holiday Inn : 20:40

# V. Scientific Program

<b>Monday 18th</b>					
8:30	Plenary				
9:50	Plenary				
10:20	Plenary				
12:50	Plenary				
14:00	Plenary				
16:00	Plenary				
16:30	Plenary				
18:30	Plenary				
A415	B410	A511	A623	B326	C305
BSM	QCD + performance	Gaseous Det	Offline	Accelerator	CIPC
A415	B410	A511	A623	B326	C305
BSM	QCD + performance	Gaseous Det	Offline	Accelerator	CIPC

<b>Tuesday 19th</b>					
8:30	Higgs				
10:00	QCD + Performance				
10:30	Flavor				
12:30	Silicon				
14:00	Accelerator				
16:00	Accelerator				
16:30	Accelerator				
18:30	Accelerator				
A415	B410	A623	A511	B326	C305
EW	Calorim.	TDAQ	MDI	Accelerator	CIPC
A415	B410	A623	A511	B326	C305
EW	Calorim.	TDAQ	MDI	Accelerator	CIPC
A415	B410	A511	A623	B326	C305
Higgs	Calorim.	Flavor	Silicon	Accelerator	CIPC

<b>Wednesday 20th</b>					
8:30	EW / Higgs				
10:10	Detector Optim.				
10:30	Flavor				
12:30	MDI				
14:00	Accelerator				
15:40	Accelerator				
16:10	Accelerator				
17:20	Accelerator				
A415	B410	A511	B326	C305	A214
EW / Higgs	Detector Optim.	Flavor	MDI	Accelerator	CIPC
A415	B410	A511	B326	C305	A214
EW / Higgs	Detector Optim.	Flavor	MDI	Accelerator	CIPC
A415	B410	A511	B326	C305	A214
EW / Higgs	Detector Optim.	Flavor	MDI	Accelerator	CIPC

## The 2019 International Workshop on the High Energy Circular Electron Positron Collider

### Monday 18 November 2019

#### Plenary I - A214 (08:30-09:50)

- Conveners: Prell, Soeren

time	title	presenter
08:30	Welcome	Prof. WANG, Yifang
08:40	Physics motivation	Prof. ARKANI-HAMED, Nima
09:20	Project overview	Prof. LOU, Xinchou

#### Plenary II - A214 (10:20-12:50)

- Conveners: Prof. Mellado, Bruce

time	title	presenter
10:20	FCC-ee/pp	Dr. ZIMMERMANN, Frank
10:50	ILC / CLIC	Dr. FAUS-GOLFE, Angeles
11:20	CEPC accelerator	Prof. GAO, Jie
11:50	CEPC detector	Dr. BEDESCHI, Franco
12:20	CEPC physics and performance	Dr. LIU, Jianbei

#### Accelerator - B326 (14:00-16:05)

- Conveners: Dr. Biagini, Maria Enrica

time	title	presenter
14:00	CEPC beam dynamic key issues	Mr. YU, Chenghui
14:20	CEPC beam dynamic key issues	Mr. WANG, Yiwei
14:40	CEPC booster and damping ring	Dr. WANG, Dou
15:00	Imperfection and correction for CEPC	Ms. WEI, Yuanyuan
15:20	Study and optimization of the CEPC dynamic aperture with the help of Accelerator Toolbox code	KARIUKINA, Kseniia
15:40	CEPC Z-pole polarization	Dr. DUAN, Zhe

#### BSM - A415 (14:00-16:05)

- Conveners: ZHANG, 昊

time	title	presenter
14:00	The Electroweak Phase Transition: A Collider Target	RAMSEY-MUSOLF, Michael
14:40	Shape of Higgs potential at future colliders	YU, Jianghao
15:20	The precision tests of the complex singlet extension to the SM at the future e <sup>+</sup> e <sup>-</sup> colliders	Dr. CHEN, NING

CIPC - C305 (14:00-16:05)

- Conveners: 黄, 浩

time	title	presenter
14:00	Klystron	李, 永明
14:15	Klystron	张, 瑞
14:30	Klystron	杨, 修东
14:45	Collider, booster and linac magnets	戴, 旭文
15:00	Collider magnets	康, 明涛
15:15	Linac magnet	朱, 光亮
15:30	Electro-magnet seperator	郭, 盘林
15:45	Electro-magnet seperator	王, 守平

Gaseous Detector - A511 (14:00-16:05)

Remote vidyo link:

<http://vidyo.ihep.ac.cn/flex.html?roomdirect.html&key=Q6ZKONcPXxRhtp00QFN05jLwS0>

- Conveners: Grancagnolo, Francesco; Dr. Qi, Huirong

time	title	presenter
14:00	TPC technologies using MPGDs	Prof. GASIK, Piotr
14:30	Status and progress of TPC detector module and prototype R&D	Dr. QI, Huirong
14:52	Status and progress of FEE ASIC chip R&D for TPC	Dr. LIU, Wei
15:14	Pixel Ingrid TPC module for collider	Dr. LIGTENBERG, Kees
15:36	Progress of MEG2 drift chamber R&D	GRANCAGNOLO, Francesco

Offline software&computing - A623 (14:00-16:05)

- Conveners: Dr. Li, Weidong; Dr. LI, Gang

time	title	presenter
14:00	HEP Software R&D	Dr. STEWART, Graeme
14:30	CMS Software and Computing	Dr. BOCCALI, Tommaso
15:00	Rucio: Scientific Data Management	BARISITS, Martin
15:30	Status of CEPC distributed Computing	ZHANG XIAOWEI
15:50	Status and Plan of Computing Site in Taiwan	SHI, Hongru

QCD+performance - B410 (14:00-16:05)

- Conveners: Prof. Cao, Qing-Hong; Dr. Zhu, HuaXing

time	title	presenter
14:00	Jet response at the CEPC	Mr. LAI, Peizhu
14:30	Identification of multi-jet events at the CEPC	Mr. ZHU, Yongfeng
14:55	Vertex optimization study and the analysis of beam pipe material budget	Mr. WU, Zhigang

15:20	The Arbor Tracking Algorithm	ZHAO, Mingrui
15:40	Photon and Pi0 reconstruction at the CEPC	SHEN, yuqiao

Accelerator - B326 (16:30-18:30)

- Conveners: Dr. Zimmermann, Frank

time title

presenter

16:30	Polarization issues in circular electron-positron super-colliders	Dr. NIKITIN, Sergei
16:50	CEPC collective instabilities in collider, booster and damping rings	Dr. LIU, Yu dong Ms. WANG NA, Na
17:10	Energy loss effect on accuracy of precision measurement of energy in CEPC	Dr. NIKITIN, Sergei DASHA LESHENOK
17:30	CEPC linac dynamics with S+C bands	Mr. MENG, Cai
17:50	CEPC plasma injector status	Dr. LU, Wei
18:10	CEPC light sources applications	HUANG YONGSHENG

BSM - A415 (16:30-18:30)

- Conveners: Yu, Jianghao

time title

presenter

16:30	Testing naturalness of MSSM and Twin Higgs models with Higgs measurements	Dr. SU, Wei
17:10	Probing dark matter particles at CEPC	Prof. LIU, Zuowei
17:40	Measuring Phase Angle in the Higgs-Bottom Interaction at Higgs Factory	ZHANG, 昊
18:10	Heavy Quarkonium Production at the CEPC	HE, Zhiguo

CIPC - C305 (16:30-18:30)

- Conveners: 刘, 大炜

time title

presenter

16:30	Linac structure and SCRF cavity fabrication	戴, 旭文
16:45	NbTi超导卢瑟福电缆	赵, 裕
17:00	0.5mm NbTi超导股线	朱, 燕敏
17:15	超导四极磁体QD0短样机制造	王, 海京
17:30	超导四极线圈加热固化系统	万, 艺
17:45	CEPC MDI-1	吕洪清
18:00	CEPC MDI-2	刘, 志华
18:15	CEPC MDI-3	何, 绍栋

Gaseous Detector - A511 (16:30-18:30)

Remote vidyo link:

<http://vidyo.ihep.ac.cn/flex.html?roomdirect.html&key=Q6ZKONcPXsRhtp00QFN05jLwS0>



- Conveners: Dr. Qi, Huirong; Dr. Ropelewski, Leszek

time	title	presenter
16:30	Progress of High time resolution of MWPC	Dr. YU, Yancheng
16:50	Development of high-performance DLC resistive electrodes for MPGDs	ZHOU, yi
17:10	A high-gain and low ion-backflow double micro-mesh gaseous structure	Mr. ZHANG, Zhiyong
17:30	Status of Muon detector for collider	Prof. LI, Liang
17:50	Experiment of MEG2 drift chamber R&D	GRANCAGNOLO, Francesco
18:10	Drift chambers R&D for BINP and HIEPA (TBD)	

Offline software&computing - A623 (16:30-18:30)

- Conveners: Dr. Sun, Sheng-Sen; Dr. Boccali, Tommaso

time	title	presenter
16:30	CEPC Software Prototype and Future Plan	Prof. HUANG, Xingtao Dr. LI, Weidong Dr. ZOU, Jiaheng
16:50	Simulation framework in the CEPCSW	Dr. LIN, Tao Ms. DENG, Ziyang FU, Chengdong
17:10	Migration of the silicon tracking algorithm to Gaudi	Ms. ZHANG, Yao FU, Chengdong Dr. SUN, Sheng-Sen
17:30	Status of ACTS for CEPC tracking	HAN, Yubo
17:50	Simulation of Calorimeter with GAN	Mr. FANG, Wenxing

QCD+performance - B410 (16:30-18:30)

- Conveners: Wang, Liantao

time	title	presenter
16:30	Physics requirement discussion input	FRANCO, Bedeschi
17:00	Physics Requirement studies: jet & detector intrinsic resolutions	RUAN MANQI
17:30	Discussion	

## Tuesday 19 November 2019

### Accelerator - A326 (08:30-10:10)

- Conveners: Prof. Pagani, Carlo

time title

presenter

08:30	CEPC SCRF systems	Mr. ZHAI, Jiyuan
08:50	CEPC cryogenic system	LI, Mei
09:10	Overview on SCRF technology and large grain cavities	Prof. PAGANI, Carlo
09:30	CEPC SC cavities and SC Lab status	Dr. SHA, Peng
09:50	CEPC 650 MHz Klystron	Dr. ZHOU, Zusheng

### CIPC: CIPC - C305 (08:30-10:10)

- Conveners: 李, 明

time title

presenter

08:30	Vacuum	章, 东林
08:45	Vacuum	蔺, 宇
09:00	Vacuum	赵, 崇凌
09:15	Vacuum	杨, 奇
09:30	Vacuum	翁, 旭东
09:45	SCRF	杜, 领会

### Flavor physics - A511 (08:30-10:10)

- Conveners: QIAN, Wenbin

time title

presenter

08:30	Leptonic and semileptonic b-hadron decays	DESCOTES-GENON, Sébastien
08:55	Bc $\rightarrow$ tau nu	PRELL, Soeren
09:15	Lepton universality at Z	CALIBBI, Lorenzo
09:35	Tau physics on the Z pole	CALIBBI, Lorenzo

### Higgs - A415 (08:30-10:10)

- Conveners: Dr. Liu, Zhen; Dr. De Blas, Jorge

time title

presenter

08:30	Higgs precision meets BSM models	Prof. SU, Shufang
08:55	Multi-lepton anomalies at the LHC and the impact on Higgs physics in the e <sup>+</sup> e <sup>-</sup> colliders	MELLADO, Bruce Prof. MELLADO, Bruce
09:20	Higgs couplings fits	ZHANG, Kaili
09:40	H $\rightarrow$ tautau analysis in the future e <sup>+</sup> e <sup>-</sup> colliders	Mrs. YU, Dan

### QCD+performance - B410 (08:30-10:10)

- Conveners: Mr. Ruan, Manqi; Dr. Liu, Jianbei

time	title	presenter
08:30	High Precision determination of Alpha_s from a global fits and lessons for the CEPC	Mr. VERBYTSKYI, Andrii
08:52	Production of doubly heavy hadrons at the Z pole	Mr. ZHENG, Xuchang
09:15	Collinear limits of Energy correlators	Mr. MOULT, Ian
09:37	Energy triple-product correlation in the e+e- colliders	Dr. ZHU, HuaXing

#### Silicon Tracking - A623 (08:30-10:10)

- Conveners: Prof. Wang, Meng

time	title	presenter
08:30	ARCADIA technology (depleted CMOS MAPS) for the Vertex detector	DA ROCHA ROLO, Manuel Dionisio
08:55	LFoundry (+ Towerjazz) small fill factor CMOS pixels	Dr. HEMPEREK, Tomasz
09:20	LGAD sensors for 4D tracking	COSTA, Marco
09:40	R&D on sensors for the silicon pixelated tracker	LI, Long

#### Accelerator - A326 (10:30-12:30)

- Conveners: Dr. Tobiyama, Makoto

time	title	presenter
10:30	CEPC injection/extraction, transport connection lines	Mr. CUI, Xiaohao
10:50	CEPC injection/extract hardware R&D	Dr. CHEN, Jinhui
11:10	Super KEK B status and KEKB control and timing systems and also the commissioning status	HIROSHI
11:30	CEPC control system	Mr. LI, gang
11:50	CEPC injector linac R&D	Ms. ZHANG, Jinru
12:10	On colimator and hybrid positron sources	ANGELES FAUSS

#### CIPC: CIPC - C305 (10:30-12:30)

- Conveners: 高, 金林

time	title	presenter
10:30	SCRF	邵, 海根
10:45	SCRF	郑, 承业
11:00	SCRF	李, 文清
11:15	cryogenics	高, 金林
11:30	Cryogenics	章, 学华
11:45	cryogenics	蔡, 森
12:00	cryogenics	吕, 洪清
12:15	Cryogenics	吴, 杰峰

#### Calorimetry - B410 (10:30-12:30)

- Conveners: Eno, Sarah

time	title	presenter
10:30	Status of CEPC Scintillator-Tungsten ECAL	NIU, Yazhou
10:55	CALICE Silicon-Tungsten ECAL	Prof. BRIENT, Jean-Claude
11:20	Segmented Crystal Electromagnetic Precision Calorimeter (S-CEPCal)	Prof. ENO, Sarah
11:45	Studies of finely-segmented crystal ECAL for CEPC	Ms. WANG, Yuexin Dr. LIU, Yong
12:05	LHCb Calorimeter Upgrade Plan	SCHOPPER, Andreas

### Flavor physics - A511 (10:30-12:30)

- Conveners: LI, Haibo

time	title	presenter
10:30	CPV in baryonic B decays	HSIAO, Yu-Kuo
10:55	CPV charmed and bottom baryons	HSIAO, Yu-Kuo
11:20	Study of $B_s \rightarrow \phi J/\psi$	ZHAO, Mingrui
11:45	Two photon physics	BOIKO, Igor NEFEDOV, Yuriy
12:10	Lepton identification (joint with performance sessions)	YU, Dan

### Higgs - A415 (10:30-12:30)

- Conveners: Prof. FANG Yaquan, Yaquan; Dr. Murray, William John

time	title	presenter
10:30	EW phase transition meets Higgs decays	Dr. LIU, Zhen
10:55	High order precision for $H \rightarrow b\bar{b}(j)$	MONDINI, Roberto
11:20	$H \rightarrow b\bar{b}, c\bar{c}, g\bar{g}$ at CEPC	BAI, Yu
11:40	$H \rightarrow ZZ$ and $H \rightarrow$ invisible analyses at CEPC	RYUTA KIUCHI
12:00	Recoil mass reconstruction in WW fusion Higgs measurement and Boson mass resolution at CEPC	LIANG, Hao
12:15	$H \rightarrow \gamma\gamma$ analysis at CEPC	GUO, Fangyi

### Silicon Tracking - A623 (10:30-12:30)

- Conveners: Dr. Macchio1o, Anna; Prof. OUYANG, Qun

time	title	presenter
10:30	HV-CMOS sensors for the outer Tracker	FOX, Harald
10:55	A novel SOI-PDD design for the CEPC vertex detector	Dr. LU, Yunpeng
11:20	A compact CMOS pixel design for the CEPC vertex detector	Prof. YANG, Ping
11:45	Light-weight mechanics	JONES, Tim
12:10	recent development of ultra-fast timing detector and its potential application in CEPC	Prof. LIANG, Zhijun

Accelerator - B326 (14:00-16:00)

- Conveners: Dr. Bambade, Philip

time	title	presenter
14:00	CEPC collider ring magnetes	YANG, Mei
14:20	CEPC booster magnets	Dr. KANG, Wen
14:40	CEPC Vacuum system	Mr. DONG, Haiyi
15:00	CEPC Power source and electro-magnet seperators	Mr. CHEN, bin
15:20	CEPC machanical systems	WANG, Haijing
15:40	CEPC instrumentation	Dr. SUI, Yanfeng

CIPC - C305 (14:00-16:00)

- Conveners: 孙, 大明

time	title	presenter
14:00	cryogenics	孙, 大明
14:15	Instrumentation	邵, 海根
14:30	Instrumentation	谢, 子燕
14:45	Instrumentation	赵, 崇凌
15:00	radiation protection	张, 龙
15:15	radiation protection	郭, 泽学
15:30	MDI远程真空连接设计	刘, 志华
15:45	超导铁支架设计	刘, 宝瑞

Calorimetry - B410 (14:00-16:00)

- Conveners: Dr. Liu, Yong

time	title	presenter
14:00	Status of CEPC Scintillator-Steel HCAL R&D	JIANG, Jiechen
14:30	Optimisation studies on the CEPC PFA-oriented Calorimetry	SHI, Yukun
15:00	Status of CALICE Semi-Digital HCAL R&D	LIU, Bing
15:30	Construction and Beam Tests of the CALICE AHCAL Technological Prototype (TBA)	

ElectroWeak - A415 (14:00-16:00)

- Conveners: Ramsey-Musolf, Michael

time	title	presenter
14:00	Z pole overview	LIANG, Zhijun
14:30	Z->bb branching ratio measurement at Z pole	LI, Bo
15:00	WW threshold scan	LI, Gang
15:30	W mass from kinematic reconstruction at 161-365 GeV	BÉGUIN, Marina

**MDI - A511 (14:00-16:00)**

- Conveners: Dr. ZHU, Hongbo; Dr. Bai, Sha

time	title	presenter
14:00	Overview of the FCC-ee Interaction Region Design	BOSCOLO, Boscolo
14:30	Background studies at SuperKEKB/Belle II	NAKAYAMA, Hiroyuki
15:00	Radiation Backgrounds at CEPC	SHI, Haoyu
15:30	Discussion on Background Studies	

**TDAQ - A623 (14:00-16:10)**

- Conveners: Martin-Haugh, Stewart; Prof. LIU Zhenan, Zhen An

time	title	presenter
14:00	Introduction	MARTIN-HAUGH, Stewart
14:10	DUNE TDAQ plans	DING, Pengfei
14:40	LHCb online readout	ALESSIO, Federico
15:10	ATLAS solutions for Phase-2 storage and networking	LE GOFF, Fabrice
15:40	ITk Readout	DOPKE, Jens

**Accelerator - B326 (16:30-18:50)**

- Conveners: Dr. Faus Golfe, Angeles

time	title	presenter
16:30	Development and optimization of FF superconducting magnets	KSENIA RYABCHENKO
16:50	Test facility status of DAFNE	Dr. BOSCOLO, Manuela
17:10	SppC status	Prof. TANG, Jingyu
17:30	CEPC and SppC compatibility	Mr. WANG, Yiwei CHEN YUKAI
17:50	SppC magnets R&D	Dr. XU, Qingjin
18:10	CEPC radiation protection	Dr. DING, Yadong

**CIPC - C305 (16:30-18:50)**

- Conveners: 肖, 豫

time	title	presenter
16:30	隧道磁铁、支架等设备运输车辆	孙, 超
16:45	100m参观模型设计, 1:1mockup隧道设计	郑, 育宏
17:00	非接触式精密测量和智能视觉系统	范, 生宏
17:15	精密基准件研制	朱, 长河
17:30	高分辨率对地观测系统、机械设计、系统集成	王, 兴泽
17:45	精密光电测量系统	劳, 达宝
18:00	大地测量, 工程测量	邹, 进贵
18:15	CEPC地质研究	潘, 保芝

**Calorimetry - B410 (16:30-18:50)**

- Conveners: Prof. Brient, Jean-Claude

time	title	presenter
16:30	Status of the CMS High-Granularity Calorimeter (HGCAL) Upgrade	Prof. PAGANIS, Stathes
16:55	Overview of Dual-Readout Calorimetry	Dr. GAUDIO, gabriella
17:20	Study on the dual-readout calorimeter for the future lepton colliders	Mr. KO, Sang Hyun
17:45	On the limit of the hadronic energy resolution of calorimeters	Prof. LEE, Sehwook
18:05	Status and next step for Dual-Readout Calorimeter in Korea	Prof. YOO, Hwi Dong

**ElectroWeak - A415 (16:30-18:50)**

- Conveners: Prof. Liang, Zhijun

time	title	presenter
16:30	ttbar experimental talk	YONAMINE, Ryo
17:00	Z-pole observable measurements	PÖSCHL, Roman
17:30	theory prediction for ttbar in SMEFT	ZHANG, Cen
18:00	e+e- -> tt high precision calculations	REUTER, Jürgen

**MDI - A511 (16:30-18:50)**

- Conveners: Boscolo, Manuela; Yu, Chenghui

time	title	presenter
16:30	Overview of the FCAL Activities (vidyo)	BENHAMMOU, Yan
17:00	Status of the CEPC LumiCal Design	HOU, Suen
17:25	Mechanical design of beampipe & pixel supporting structure	JI, Quan
17:50	Impact of energy spread on luminosity measurement	Prof. BOZOVIC, Ivanka

**TDAQ - A623 (16:30-19:00)**

- Conveners: Alessio, Federico; Prof. LIU Zhenan, Zhen An

time	title	presenter
16:30	VELO Readout System	HENNESSY, Karol
17:00	ATLAS experience with programmable logic	QIAN, Weiming
17:30	Real-time analysis with LHCb	SAUR, Miroslav
18:00	Huawei's perspective on HPC availability over next few years	Dr. LIU, Huawei HU, Yaoguo

## Wednesday 20 November 2019

### Accelerator - B326 (08:30-10:10)

- Conveners: Prof. Gao, Jie

time	title	presenter
08:30	CEPC civil engineering (Qinhuangdao)	YU XIAO
08:50	CEPC civil engineering (Huzhou)	KE HUANG
09:10	CEPC civil engineering (Changsha)	JIANG YANG PAN
09:30	CEPC Auxiliary Facilities	HUANG, Jinshu
09:50	CEPC installation and alignment	Mr. WANG, Xiaolong

### CIPC - C305 (08:30-10:10)

- Conveners: 孙, 继东

time	title	presenter
08:30	Installation and store	王. 佳斌
08:45	SppC magnet	刘. 建伟
09:00	SppC magnet	赵. 跃
09:15	SppC magnet	蔡. 传兵
09:30	SppC magnet	赵. 裕
09:45	CIPC全体会议	

### Detector cost-performance optimization - A623 (08:30-10:10)

- Conveners: Qian, Jianming

time	title	presenter
08:30	Vertex and silicon tracker	Dr. ZHU, Hongbo
08:40	TPC	Dr. QI, Huirong
08:50	IDEA wire chamber	GRANCAGNOLO, Francesco
09:00	PFA ECAL	BRIENT, Jean-Claude
09:10	PFA HCAL	YANG, Haijun Prof. YANG, Haijun
09:20	Dual Readout Calorimetry	BEDESCHI, Franco BEDESCHI, Franco
09:30	Crystal ECAL	ENO, Sarah
09:40	RPC and scintillator muon detector (by vidyo)	Prof. LI, Liang
09:50	IDEA muon detector	GIACOMELLI, Paolo

### ElectroWeak: Joint section EW/higgs - A415 (08:30-10:10)

- Conveners: Prof. Su, Shufang

time	title	presenter
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08:30	theoretical uncertainties for EW/Higgs-boson precision measurement at CEPC	Dr. SVEN, Heinemeyer
09:00	Global fits of EW, Diboson and Higgs	Dr. DE BLAS, Jorge
09:30	Discussion	

Flavor physics - B410 (08:30-10:10)

- Conveners: Dr. Descotes-Genon, Sebastien

time	title	presenter
08:30	EDM and anomalous magnetic moment of tau at CEPC	CHEN, Xin
08:55	Z decay into pipi, KK	CHENG, Shan
09:20	Heavy neutrino searches at future Z-factories	QIN, Qin
09:45	TBD	WANG, Wei

MDI - A511 (08:30-10:10)

- Conveners: Ji, Quan; Hou, Suen

time	title	presenter
08:30	Mechanical Integration in the SuperKEKB Interaction Region	KANAZAWA, Ken-Ichi
09:00	Integration Design in the CEPC Interaction Region	WANG, Haijing
09:20	Focusing Quadrupole Design for CEPC	ZHU, Yingshun
09:40	Solenoid magnet Design for CEPC	Dr. NING, Feipeng

Plenary III - A214 (10:30-12:30)

- Conveners: Prof. Jin, Shan

time	title	presenter
10:30	IC / IB report and discussion	Prof. GAO, Yuanning GIACOMELLI, Paolo
11:30	CIPC report	Dr. GAO, Jinlin
11:50	CEPC TDAQ and online computing	Prof. NEWBOLD, David
12:10	CEPC offline computing and software	Dr. LI, Weidong

Plenary IV - A214 (14:00-15:40)

- Conveners: Dr. Wormser, Guy

time	title	presenter
14:00	Future progress with EW precision calculations	Prof. VICINI, Alessandro
14:40	Preparing for the detector TDR phase	Prof. GUIMARAES COSTA, Joao
15:10	Highlights and future future perspectives of the CEPC accelerator	Prof. PAGANI, Carlo

Plenary V - A214 (16:10-17:20)

- Conveners: Barberio, Luigia Elisabetta

time	title	presenter
16:10	Highlights and future perspectives of the CEPC physics	Prof. CRAIG, Nathaniel

<b>16:40</b>	Highlights and future perspectives of the CEPC detector	Prof. ENO, Sarah
<b>17:10</b>	Conclusion	

## VI. Transportation

IHEP is located 45 km from the Beijing International Airport. It is strongly suggest to take taxi. You can get a taxi right outside the arrival terminals. Taxies wait there in line. The normal taxi driver will not soliciting business in person at the Airport arrival terminals hall.

Transportation from Beijing Airport to your hotel:

➤ (1) By taxi:

You can get a taxi right outside the arrival terminals. It takes 40- 45 minutes from the airport to the Chang-Feng Holiday inn. The fare is about 25USD. If you take the Taxi to the Hotel, please show the following tag ① or ②to the taxi driver.

➤ (2) By Subway:

You can take Beijing Subway from the Airport Station to Dongzhimen Station, from which transfer to line 2. Then make another change from line 2 to line 1 at Jianguomen Station, Take the direction to Ping Guo Yuan and stop off at Yuquanlu Station. Take the north-west exit (Port A) and the IHEP campus is just at the north-west corner of the traffic cross. You can take the southern gate ( 300m west to the Subway Port A) 【MAP】



➤ (3) Airport shuttle bus:

You also can take airport shuttle bus from the airport to the Gong Zhu Fen bus station. The fare is 16RMB (2.4USD). Then you can take taxi to the Hotels or the Guest House. The fare is about 25RMB (3.5 USD). If you take the airport shuttle bus to Gong Zhu Fen, please show the following tag 4 to the check-in staff. When you arrive to Gong Zhu Fen, you need to take a taxi to the Hotel, please show the tag 1, 2 or 3 to the taxi driver. 【MAP】



➤ *If you take taxi, please show this to the taxi drive.*

1. 请送我到永定路的长峰假日酒店

Please send me to Chang-Feng Holiday Inn at Yong Ding Lu Street.

2. 请送我到玉泉西街的金鼎宏泰酒店

Please send me to Jin-Ding-Hong-Tai hotel at West Yuquan Street.

3. 请送我到玉泉路（19号乙）高能物理研究所的专家招待所

Please send me to the IHEP Guest House at YU Quan Lu Street.

➤ *If you take airport shuttle bus, please show this to the airport staff or any one near by you.*

4. 请告诉我，在哪里乘民航班车去公主坟

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Please send me where the airport shuttle bus to Gong Zhu Fen is.

➤ *If you want to eat outside IHEP nearby, there are some restaurants in Wu Mart(物美) supermarket and some around Wu Ke Song (五棵松) subway station which called “华熙 live 五棵松”.*

For Wu Mart, you can walk there.

For Wu Ke Song (五棵松) restaurants, you can take subway line 1 (四惠东方向/Si Hui Dong direction) for one station and get off at Wu Ke Song (五棵松) stop. Please go out following B1 东北口 (Northeast exit) , you will see a big indicator with words “华熙 live 五棵松”. It is very near to Wu Ke Song (五棵松) subway station.

### **Emergency Contact Information:**

If you have any problems, you may call the following members of the Organization Committee,

- Email: [cepcws2019@ihep.ac.cn](mailto:cepcws2019@ihep.ac.cn)
- Ms. Yaru Wu: 86-10-88236054, 86-17610430906















