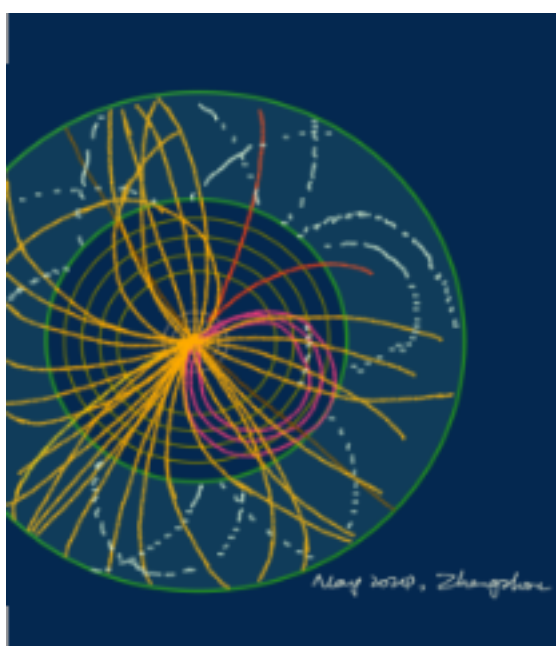# 2024 年粒子物理实验径迹重建研讨会 Workshop of Tracking in Particle Physics Experiments

Report of Contributions

Contribution ID: **1**　　　　　　　　　　　　　　　　Type: **not specified**

Introduction

Presenter:　AI, Xiaocong (Zhengzhou University)

Session Classification:　Tracking experience of HEP experiments

Contribution ID: **2**　　　　　　　　　　　　　　　　　Type: **not specified**

Track reconstruction and performance of BESIII

Friday, 17 May 2024 08:45 (40 minutes)

Presenter: WANG, Liang-Liang (Institute of High Energy Physics (Beijing))

Session Classification: Tracking experience of HEP experiments

Contribution ID: **3**

Type: **not specified**

Tracking reconstruction and performance of CEPC

Friday, 17 May 2024 09:50 (30 minutes)

Presenter: 刘, 梦瑶 (高能所)

Session Classification: Tracking experience of HEP experiments

Contribution ID: 4   Type: **not specified**

Track reconstruction and performance of STCF

Friday, 17 May 2024 10:50 (30 minutes)

Presenter: ZHOU, Hang (University of Science and Technology of China)

Session Classification: Tracking experience of HEP experiments

Contribution ID: 5 Type: **not specified**

Track reconstruction and performance of darkSHINE

Friday, 17 May 2024 11:20 (25 minutes)

Presenter: ZHANG, Junhua (Shanghai Jiao Tong University)

Session Classification: Tracking experience of HEP experiments

Contribution ID: **6**   Type: **not specified**

Track reconstruction and performance of LHCb

Friday, 17 May 2024 14:00 (40 minutes)

Presenter: LI, Peilian (UCAS)

Session Classification: Tracking experience of HEP experiments

Contribution ID: **7**   Type: **not specified**

Track reconstruction and performance of ATLAS

Friday, 17 May 2024 14:40 (40 minutes)

Presenter: GREFE, Christian (University of Bonn)

Session Classification: Tracking experience of HEP experiments

Contribution ID: **8**   Type: **not specified**

Track reconstruction and performance of BELLE-II

Friday, 17 May 2024 15:50 (40 minutes)

Presenter: LUECK, Thomas (INFN - National Institute for Nuclear Physics)

Session Classification: Tracking experience of HEP experiments

Contribution ID: **9**　　　　　　　　　　　　　　　　　　　　Type: **not specified**

ACTS status

Friday, 17 May 2024 16:30 (40 minutes)

Presenter:　SALZBURGER, Andreas (CERN)

Session Classification:　Tracking experience of HEP experiments

Contribution ID: **10**　　　　　　　　　　　　　　　　　　　　　Type: **not specified**

ML for HEP tracking

Session Classification: Track finding algorithms (CA and ML)

Contribution ID: **11**

Type: **not specified**

GNN for tracking at BESIII and STCF

Saturday, 18 May 2024 09:25 (25 minutes)

Presenter: 贾, 晓倩 (山东大学)

Session Classification: Track finding algorithms (CA and ML)

Contribution ID: **12**　　　　　　　　　　　　　　　　　　　　Type: **not specified**

Track finding with Cellular Automaton

Saturday, 18 May 2024 09:00 (25 minutes)

Presenter:　GUO, Aiqiang (Institute of modern physics, Chinese Academy of Sciences)

Session Classification:　Track finding algorithms (CA and ML)

Contribution ID: **13**   Type: **not specified**

Alignment of BESIII

Saturday, 18 May 2024 11:15 (30 minutes)

Presenter: WU, Linghui (IHEP)

Session Classification: Track-based high-level object reconstruction and detector alignment

Contribution ID: **14**　　　　　　　　　　　　　　　　　　Type: **not specified**

Kalman-Filter based alignment in ACTS

Presenter:　AI, Xiaocong (Zhengzhou University)

Session Classification:　Track-based high-level object reconstruction and detector alignment

Contribution ID: **15** Type: **not specified**

L1 tracking of CMS

Saturday, 18 May 2024 14:00 (20 minutes)

Presenter: HU, Zhen (Tsinghua University)

Session Classification: Online tracking and trigger

Contribution ID: **16**   Type: **not specified**

Development of first level track trigger at Belle II using Deep Neural Network

Saturday, 18 May 2024 14:20 (30 minutes)

Presenter: LIU （刘）, Yuxin （宇鑫）(The Graduate University for Advanced Studies, SOK-ENDAI)

Session Classification: Online tracking and trigger

Contribution ID: **17**   Type: **not specified**

MDC Track Reconstruction for the Pre-Research of STCF L1 Trigger

Saturday, 18 May 2024 14:50 (30 minutes)

Presenter: 郝, 艺迪 (中国科学技术大学)

Session Classification: Online tracking and trigger

Contribution ID: **18**　　　　　　　　　　　　　　　　　　Type: **not specified**

EDM4hep: the Data Model in Key4HEP

Saturday, 18 May 2024 15:50 (30 minutes)

Presenter: ZOU, Jiaheng (高能所)

Session Classification: GPU-accelerated tracking

Contribution ID: **19**　　　　　　　　　　　　　　　　　　Type: **not specified**

TRACCC status

Saturday, 18 May 2024 16:20 (30 minutes)

Presenter:　YEO, Beomki (UC Berkeley)

Session Classification:　GPU-accelerated tracking

Contribution ID: **20**　　　　　　　　　　　　　　　　　　Type: **not specified**

TRACCC seeding for the CEPC pixel detector

Saturday, 18 May 2024 16:50 (30 minutes)

Presenter: 张, 逸舟

Session Classification: GPU-accelerated tracking

Contribution ID: **21**　　　　　　　　　　　　　　　　Type: **not specified**

Detector geometry description and implementation

Sunday, 19 May 2024 09:00 (30 minutes)

Presenter: 李, 腾 (Shandong University)

Session Classification: Detector geometry description and optimization

Contribution ID: **22**

Type: **not specified**

Detector geometry optimization

Sunday, 19 May 2024 09:30 (30 minutes)

Presenters: LI, Gang (高能所);（EPD.IHEP）, LI Gang (高能所)

Session Classification: Detector geometry description and optimization

Contribution ID: **23**　　　　　　　　　　　　　　　　　Type: **not specified**

Discussion: low momentum tracking

Sunday, 19 May 2024 10:30 (20 minutes)

Presenter:　ZHANG, Jin (Sun Yat-Sen (Zhongshan) University)

Session Classification:　Discussion and prospects

Contribution ID: **24**　　　　　　　　　　　　　　　Type: **not specified**

Discussion: tracking in high noise/dense environment

Sunday, 19 May 2024 10:50 (20 minutes)

Presenter:　QIN, Xiaoshuai (Shandong University)

Session Classification:　Discussion and prospects

Contribution ID: **25**　　　　　　　　　　　　　　　　　　Type: **not specified**

Discussion: Long-lived particle tracking

Sunday, 19 May 2024 11:10 (15 minutes)

Presenter: AI, Xiaocong (Zhengzhou University)

Session Classification: Discussion and prospects

Contribution ID: **26**　　　　　　　　　　　　　　　　　　Type: **not specified**

Discussion: prospects of common tracking software for future HEP experiments

Sunday, 19 May 2024 11:25 (15 minutes)

Presenter: AI, Xiaocong (Zhengzhou University)

Session Classification: Discussion and prospects

Contribution ID: **27**   Type: **not specified**

Arbor and Jet origin id reconstruction at CEPC

Saturday, 18 May 2024 10:40 (35 minutes)

Presenter: RUAN, Manqi (IHEP)

Session Classification: Track-based high-level object reconstruction and detector alignment

Contribution ID: **28**   Type: **not specified**

GNN for tracking at g-2

Saturday, 18 May 2024 09:50 (20 minutes)

Presenter: LI, Bingzhi (Zhejiang Lab 之江实验室)

Session Classification: Track finding algorithms (CA and ML)

Contribution ID: **29**

Type: **not specified**

Quantum algorithms for track reconstruction at future colliders

Friday, 17 May 2024 17:10 (30 minutes)

Presenter: OKAWA (大川), Hideki (英希) (IHEP)

Session Classification: Tracking experience of HEP experiments

Contribution ID: **30**

Type: **not specified**

Track reconstruction and performance of COMET

Friday, 17 May 2024 09:25 (25 minutes)

Presenter: XING, Tianyu (高能所)

Session Classification: Tracking experience of HEP experiments

Contribution ID: **31**

Type: **not specified**

Introduction & Welcome

Session Classification: Welcome & Introduction

Contribution ID: **32** · Type: **not specified**

Welcome & Introduction

Friday, 17 May 2024 08:30 (15 minutes)

Session Classification: Tracking experience of HEP experiments