

9th Workshop on Hadron physics in China and Opportunities Worldwide

Monday 24 July 2017 - Saturday 29 July 2017

Nanjing University, Nanjing, China

Conference Scientific Programme

Session 1: Overview/Future 1
Session 2: Overview/Future 2
Session 3: Nucleon Structure 1
Session 4: Nucleon Structure 2
Session 5: Nucleon and Nuclear Physics
Session 6: Hadron Spectroscopy
Session 7: Symmetry and Search for New Physics
Session 8: Instrumentation
Session 9: New facilities and physics program. Special Meetings: Tuesday evening, JLab12/SOLID and EIC discussions

Friday afternoon, nMRPC detector meeting
Friday-Saturday: forum on the calculation of parton distribution

Main Program: Session 1: July 24, 2017, Monday Morning, Chair: Haiyan Gao

9:00 Welcome (TBD)
9:05 Overview of BESIII: Xiaoyan Shen (IHEP)
9:45 Overview/Future Program at JLab: Jian-ping Chen (JLab, USA)
10:25 Coffee break
10:45 Overview/Future Program at RHIC: Berndt Mueller (BNL, USA)
11:25 Nuclear and hadron physics project with Shanghai electron and photon beams: Yugang Ma (SINAP)
12:05 Discussion
12:20 Lunch break Session 2: July 24, 2017, Monday Afternoon, Chair: Jian-Ping Chen
14:00 Strong QCD: Atlas for the standard model and, potentially, beyond: Craig Roberts (Argonne, USA)
14:40 Overview/Future of COMPASS program: Matthias Grosse Perdekamp (UIUC, USA)
15:20 EIC in US: Zein-Eddine Meziani (Temple, USA)
16:00 Coffee break
16:20 Z-factory : Zhaoxi Zhang (ITP)
17:00 SPHENIX and forward upgrade: Jin Huang (BNL, USA)
17:30 QCD bound states via Dyson-Schwinger equation: Sixue Qin (Chongqing U)
18:00 Discussion
18:20 Adjourn
18:30 Reception Session 3: July 25, 2017, Tuesday Morning, Chair: Craig Roberts
9:00 Recent progress on hadron structure from lattice QCD: H. W. Lin (Michigan State, USA)
9:30 Spin Results from JLab: Karl Slifer (New Hampshire, USA)
10:00 Spin Results from RHIC-STAR: Jinlong Zhang (LBNL, USA)
10:30 Coffee break
10:50 The Strange quark-antiquark asymmetry of the nucleon: Bo-Qiang Ma (PKU)
11:20 Global polarized Lambda in A-A: Zuo-tang Liang (Shandong)
11:50 New angular momentum tensor for nucleon spin structure: Xiangsong Chen (HUST)
12:20 Lunch break Session 4: July 25, 2017, Tuesday Afternoon, Chair: Zein-Eddine Meziani
14:00 Meson structure with dilepton production: Jen-Chieh Peng (UIUC, USA)
14:30 First transverse spin asymmetries measured in polarized Drell-Yan at COMPASS: Wen-Chen Chang (Institute of Physics, Taiwan)
15:00 TMD Experiments from COMPASS SIDIS: Takahiro Iwata (Yamagata, Japan)
15:30 TMD Experiments from JLab CLAS12: Bjoern Seitz (Glasgow, UK)
16:00 Coffee break
16:20 Non-perturbative QCD: the last frontier of standard model physics: Xiangdong Ji (SJTU and UMD, USA)
17:00 Measuring the gluon orbital angular momentum at the electron-ion collider: yong Zhao (UMD and LBNL, USA)
17:30 The pauli form factor of quark and nontrivial topological structure of the QCD: Baiyang Zhang (IMP)
18:00 Discussion
18.20 Adjourn 20:00-22:00 Discussions on Collaboration on JLab 12/SOLID and China

EIC Session 5: July 26, 2017, Wednesday Morning, Chair: Liguang Tang

- 9:00 Latest on the Proton Radius Puzzle from PRad: Haiyan Gao (Duke, USA and Duke-Kunshan)
- 9:30 Highlights and recent development in short range correlation: Axel Schmidt (MIT, USA)
- 10:00 Search for Muon to electron conversion at J-PARC: Chen Wu (NJU and J-PARK)
- 10:30 Coffee break
- 10:50 Penta-quark 5-body calculation: Emiko Hiyama (RIKEN, Japan)
- 11:20 Hidden-charm meson-baryon molecules with a short-range attraction from five quark states: Yasuhiro Yamaguchi (RIKEN, Japan)
- 11:50 Remarks on the hidden color components: Jia-Lun Ping (NJNU)
- 12:20 Lunch break

Session 6: July 26, 2017, Wednesday Afternoon, Chair: Zhaoxi Zhang

- 14:00 GlueX: Beni Zihlmann (JLab, USA)
- 14:30 Review on tetra-quark states from experimental results: Chengping Shen (BUAA)
- 15:00 Review on multi-quark states from theoretical results: Huaxing Chen (BUAA)
- 15:30 High strangeness dibaryon search with STAR data: Jinhui Chen (SINAP)
- 16:00 Coffee break
- 16:20 Studies on decays of light mesons: Lena Heijkenkjold (Mainz, Germany)
- 16:50 Hadronic light-by-light scattering and the muon's $(g-2)$: Igor Danilkin (Mainz, Germany)
- 17:20 New physics with high intensity low energy proton beam: Zuowei Liu (NJU)
- 17:50 The principle of maximum conformality and its application to the high energy physics process: Sheng-quan Wang (Chongqing U.)
- 18:20 Adjourn
- 18:30 Banquet

Session 7: July 27, 2017, Thursday Morning, Chair: Lena Heijkenkjold

- 9:00 Unified field theory in hyper spacetime: Yueliang Wu (ITP)
- 9:40 The first results of Dark Matter Particle Explorer: Jin Chang (PMO)
- 10:10 Dark matter at Jinping underground lab-PandaX: Changbo Fu (SJTU)
- 10:40 Coffee Break
- 10:55 Overview on Dark Matter: Yufeng Zhou (ITP)
- 11:25 Quark and glue components of proton spin: Keh-Fei Liu (Kentucky State, USA)
- 11:55 PVDIS at JLab: Xiaochao Zheng (Virginia, USA)

12:25 Lunch break Session 8: July 27, 2017, Thursday Afternoon, Chair: Nu Xu

- 14:00 MRPC R&D: Yi Wang (Tsinghua)
 - 14:30 MRPC readout R&D : Lei Zhao (USTC)
 - 15:00 GEM R&D at USTC : Wenhao You (USTC)
 - 15:30 MPGD Detectors and Electronics at CIAE : Xinglong Li (CIAE)
 - 16:00 Coffee break
 - 16:20 GEM R&D at Lanzhou: Huiyin Wu (Lanzhou)
 - 16:50 ECal: Jianbin Jiao (Shandong)
 - 17:20 Ecal R&D at THU: Chendi Shen (Tsinghua)
 - 17:50 Adjourn
- Session 9: July 28, 2017, Friday Morning, Chair: Fan Wang
- 9:00 Future particle and nuclear physics facilities in China: Yifang Wang (IHEP)
 - 9:30 Overview/Future Program in J-PARC Shinya Sawada (KEK, Japan)
 - 10:00 CEE project for medium-high energy nuclear physics: Nu Xu (LBNL, USA and CCNU)
 - 10:30 Coffee break
 - 10:50 Polarized experiments with medium energy hadron beam: Yi Zhang (Lanzhou)
 - 11:20 Nanjing Plan for high intensity proton beam: An Sun (NJU)
 - 11:50 Concluding Remarks: Jian-ping Chen (JLab)
 - 12:20 End of the regular program of the workshop

July 28, 2017, Friday Afternoon

Session I: mini-workshop Third Meeting on nMRPC detector R&D (14:00-18:10)

- 14:00 Welcome: J.P. Chen (JLab)

14:05 "Status of nMRPC R&D at BNL": Mickey Chiu (BNL)
14:50 "Front-end electronics and chips": Isar Mostfanezhad (Nalu, Hawaii)
15:10 "Readout electronics for nMRPC": Alexandre Camsonne (JLab)
15:40 Tea Break
16:00 "Status of nMRPC R&D at UIUC": Matthias Perdekamp (UIUC)
16:30 "nMRPC R&D at THU": Yi Wang (THU)
17:00 "FAST electronics": Lei Zhao (USTC)
17:30 Discussion: Future Plan: All
18:00 Closing Remarks: Nu Xu (CCNU/LBNL) July 28 afternoon 14.00-18.00
Session II: After workshop forum on the calculation of parton distribution
(14:00-18:00)
14:00 Pion parton distribution amplitude based on BS-DS equation: Craig Roberts (ANL)
15:00 Parton distribution calculation based on large momentum effective field
theory: Xiang-Dong Ji (SJTU and UMD, USA)
16:00 Coffee Break
16:20 Matching issue in quasi parton distribution approach: Yan-Qing Ma
17:20 Discussion
18:00 Adjourn July 29 morning 9.00-12.00
Session II: After workshop forum on the calculation of parton distribution
(14:00-18:00)
09:00 Parton distribution with non-perturbative renormalization from lattice QCD: Yong
Zhao (UMD and LBNL, USA)
10:00 Lattice QCD calculation of gluon spin in nucleus: Keh-Fei Liu (Kentucky State,
USA)
11:00 Plotting pion's light front wave function: Lei Chang (Nankai University)
Speakers: C.D. Roberts (ANL) , K.F. Liu (Kentucky) , H.W. Lin (Michigan) ,
X.D. Ji (SJTU and UMD), Yong Zhao (UMD and LBNL), Y.Q. Ma (PKU), Lei Chang (Nankai)