



江苏省物理学会
JiangSu Society of Physics



Workshop on Higgs potential and BSM opportunities

Organizers: Shenjian Chen, Zuwei Liu, Shan Jin, Ligang Xia, Lei Zhang
JiangSu Society of Physics, School of Physics at Nanjing University

Organization committee: (From north to South)

- PKU: Qinghong Cao, Jia Liu, Xiaohu Sun; THU: Xin Chen; ITP: Jing Shu, Jianghao Yu; BHU: Li Yuan; IHEP: Yaquan Fang, Yanping Huang, Mingshui Chen, Cen Zhang; SDU: Lianliang Ma; USTC: Yusheng Wu; NJU: Lei Zhang, Zuwei Liu; NNJU: Lei Wu; SJTU: Kun Liu, Michael Ramsey-Musolf; HUST: Kaofeng Kang; FDU: Jiayin Gu; ZJU: Meng Xiao; CQU: Ligong Bian; SYSU: Honghao Zhang

Workshop on Higgs physics

- Higgs boson is the only elementary particle without spin, in principle can coupling to everything, opening a door to many new areas
 - Higgs portal to dark sector, EW phase transition, Naturalness: sensitive to UV, Vacuum stability, ...

- This workshop meant bring theorists and experimentalist together to boost the Higgs physics study in China
 - Gathering to the critical mass and increasing interaction
 - Direction: regular and topic-driven meetings in future



Agenda

- Three lectures given yesterday, records will be found in [Koushare \[link\]](#)
- SM Higgs session
 - conveners: (morning) Mingshui Chen, Lilin Yang; (afternoon) Jiayin Gu, Yusheng Wu
 - precise measurement of Higgs boson, indirect BSM new physics search via Higgs boson measurement.
- Di-Higgs session
 - conveners: (morning) Xiaohu Sun, Jianghao Yu; (afternoon) Yaquan Fang, Fapeng Huang
 - Higgs self-coupling, Higgs potential, EWPT, BSM new physics via di-Higgs or di-scalar, EWPT in Cosmology or Gravitational wave.
- BSM Higgs session
 - conveners: (morning) Shu Li, Jian Wang; (afternoon) Lei Wu, Li Yuan.
 - searches for extra BSM Higgs, including both heavy and light scalars.



Miscellaneous



- Language
 - Presentation recommended to given in English
 - Q&A and Discussion can be done either English or Chinese

- Group photo
 - We would like to take a group photo at first coffee break ~10:30am

- Submit questions
 - Submit question during the presentation via the ZOOM or Koushang chat

Thank You!

