

Higgs potential and BSM opportunity 希格斯物理研讨会

Friday 27 August 2021 - Tuesday 31 August 2021

南京大学（鼓楼校区）线上会议 Nanjing University (Gulou Campus) at ZOOM

Conference Scientific Programme

本次研讨会的三个主题以及对应的召集人如下:

“SM

希格斯”主题, 召集人: 陈明水, 顾嘉荫, 吴雨生, 杨李林。

该主题内容涵盖: 希格斯粒子性质精确测量, 以及通过希格斯精确测量寻找新物理。

“双希格斯”主题, 召集人: 方亚泉, 黄发朋, 孙小虎, 于江浩。

该主题内容涵盖: 希格斯场自耦合测量, 希格斯场势能, 电弱相变, 通过双希格斯或标量粒子寻找新物理, 电弱相变在

“BSM希格斯”主题, 召集人: 李数, 王健, 武雷, 袁丽。

该主题内容涵盖: 寻找超出标准模型的希格斯粒子, 包含高质量希格斯粒子以及低质量的新标量粒子。

报告的征集和安排主要依据会议网页上的“提交摘要”。有任何问题, 欢迎联系相关主题召集人或会议负责人。

第一天 Pre-school: 召集人: 边立功、刘坤 康召丰 SM, 电弱破缺机制 陈宁

扩展标准模型, 2HDM 刘衍文 希格斯物理实验, 发现, 精确测量, BSM寻找

已确认的邀请报告如下: 王连涛 Higgs Overview 鲁楠 Precise measurements 黄艳萍

Search for rare processes 王健 Precise theoretical predictions for Higgs processes

张宏浩 Composite Higgs and Dark Matter 舒菁 Higgs potential and phase transition

Luca Cadamuro Non-resonant di-Higgs process at LHC Bruce Mellado BSM resonance

search for HH (SH, SS) at LHC 曹庆宏 BSM Higgs couplings 杨金民 Higgs bosons in new

physics models 王锦 Searches for light scalar and charged scalar 徐来林 Heavy

neutral scalar searches 阮曼奇 CEPC SM Higgs The three major sessions and

corresponding conveners are listed below: “SM Higgs” session, conveners: Mingshui

Chen, Jiayin Gu, Yusheng Wu, Lilin Yang. Session scope: precise measurement of Higgs

boson, indirect BSM new physics search via Higgs boson measurement. “Di-Higgs”

session, conveners: Yaquan Fang, Fapeng Huang, Xiaohu Sun, Jianghao Yu. Session scope:

Higgs self-coupling, Higgs potential, Electro-Weak Phase Transition, BSM new physics

via di-Higgs or di-scalar, EWPT in Cosmology or Gravitational wave. “BSM Higgs”

session, conveners: Shu Li, Jian Wang, Lei Wu, Li Yuan. Session scope: searches for

extra BSM Higgs bosons, including both heavy and light scalars. The presentations will

be collected and organized via the indico “Abstract submit”. In case you have any

question, please contact the session conveners or workshop organizers.