

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

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, 电弱相变在宇宙学、引力波中的研究。

“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, 欢迎联系相关主题的主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.

