

NPG Workshop 2024

Monday, 26 August 2024 - Friday, 30 August 2024

Book of Abstracts

Contents

Opening Speech	1
BESIII 新物理实验综述	1
“BESIII 上粲强子、QCD 及新物理研究” 新物理课题进展	1
“粲强子衰变和标准模型的精确检验” 新物理课题进展	1
BESIII 实验进展	1
Muon 反常磁矩的双圈图量级分析	1
宇宙相变引力波和新物理	1
LHCb 实验上的新物理研究	1
Belle/BelleII 实验上的新物理研究	2
基于超导谐振腔超轻暗物质暗光子探测	2
暗物质直接探测实验进展	2
Dark sector study at BESIII: ALPs search and invisible decay	2
Dark photon and muon-philic particle at BESIII	2
Search for FCNC process at BESIII	2
Search for Baryon Number Violation at BESIII	3
Search for Charmonium weak decay at BESIII	3
Probing active-sterile neutrino transition magnetic moments at colliders	3
Light New Particles Motivated by Flavour Anomalies	3
LFV decays $Z \rightarrow l_i l_j$, $h \rightarrow l_i l_j$ and $l_j \rightarrow l_i \gamma \gamma$ in the $U(1)_X$ SSM	3
Search for Charged Lepton Flavor Vilation at BESIII	3
在 BESIII 上寻找超子电偶极矩	3
Search for Lepton Number Violation at BESIII	4
Search for Rare decay at BESIII	4

Application of Machine Learning at BESIII	4
Application of visualization for physics analysis improvement at BESIII	4
Tips for BESIII analysis, writing and review	4
Discussion	4
总结	4
Progresses in charmed baryon decays	5

Session / 3

Opening Speech

Session / 4

BESIII 新物理实验综述

Corresponding Author: yuzhang@usc.edu.cn

Session / 5

“BESIII 上粲强子、QCD 及新物理研究” 新物理课题进展

Corresponding Author: dayong.wang@pku.edu.cn

Session / 6

“粲强子衰变和标准模型的精确检验” 新物理课题进展

Corresponding Author: youzhy5@mail.sysu.edu.cn

Session / 7

BESIII 实验进展

Corresponding Author: xiaorui@ucas.ac.cn

Session / 8

Muon 反常磁矩的双圈图量级分析

Corresponding Author: zhaosm@hbu.edu.cn

Session / 9

宇宙相变引力波和新物理

Corresponding Author: guohuaike@ucas.ac.cn

Session / 10

LHCb 实验上的新物理研究

Corresponding Authors: yuehong.xie@mail.ccnu.edu.cn, yuehong.xie@iopp.ccnu.edu.cn

Session / 11

Belle/BelleII 实验上的新物理研究

Corresponding Author: luot@fudan.edu.cn

Session / 12

基于超导谐振腔超轻暗物质暗光子探测

Corresponding Author: tangzhx@ustc.edu.cn

Session / 13

暗物质直接探测实验进展

Corresponding Author: mengyue@sjtu.edu.cn

Session / 14

Dark sector study at BESIII: ALPs search and invisible decay

Corresponding Author: dingxx@stu.pku.edu.cn

Session / 15

Dark photon and muon-philic particle at BESIII

Corresponding Author: lizhj37@mail2.sysu.edu.cn

Session / 16

Search for FCNC process at BESIII

Corresponding Author: sunl@whu.edu.cn

Session / 17

Search for Baryon Number Violation at BESIII

Corresponding Author: haoxiqing@htu.edu.cn

Session / 18

Search for Charmonium weak decay at BESIII

Corresponding Author: zhanyh6@mail2.sysu.edu.cn

Session / 19

Probing active-sterile neutrino transition magnetic moments at colliders

Corresponding Author: dayu@hfut.edu.cn

Session / 20

Light New Particles Motivated by Flavour Anomalies

Corresponding Author: y@ccnu.edu.cn

Session / 21

LFV decays $Z \rightarrow l_i l_j$, $h \rightarrow l_i l_j$ and $l_j \rightarrow l_i \gamma \gamma$ in the $U(1)_X$ SSM

Session / 22

Search for Charged Lepton Flavor Vilation at BESIII

Corresponding Author: 23110200033@m.fudan.edu.cn

Session / 23

在 BESIII 上寻找超子电偶极矩

Corresponding Author: zhangjianyu@ihep.ac.cn

Session / 24

Search for Lepton Number Violation at BESIII

Corresponding Authors: wangtj@ihep.ac.cn, wangtj@mail.nankai.edu.cn

Session / 25

Search for Rare decay at BESIII

Corresponding Author: taoluyan943@163.com

Session / 26

Application of Machine Learning at BESIII

Corresponding Author: yanguli@pku.edu.cn

Session / 27

Application of visualization for physics analysis improvement at BESIII

Corresponding Author: lizhj37@mail2.sysu.edu.cn

Session / 28

Tips for BESIII analysis, writing and review

Corresponding Author: mahl@ihep.ac.cn

Session / 29

Discussion

Session / 30

总结

Corresponding Author: youzhy5@mail.sysu.edu.cn

Session / 31

Progresses in charmed baryon decays

Corresponding Author: ron1a2l3d4@gmail.com