

2024 Beijing dark matter symposium and the 4th BNU dark matter workshop

Monday, December 16, 2024 - Thursday, December 19, 2024

Book of Abstracts

Contents

| | |
|--|---|
| CDEX | 1 |
| PandaX | 1 |
| XENONnT | 1 |
| 太极简介 | 1 |
| 第一性原理计算暗物质探测 | 1 |
| 自旋探测 | 1 |
| dark matter detection at LHAASO | 1 |
| Non-canonical ALP Search in High-Intensity Physics | 1 |
| Some analyses of dark glueball from lattice | 2 |
| Ultralight dark matter and its detection | 2 |
| Fermionic Absorption Dark Matter and Neutrinos | 2 |
| New dark matter search channels at electron colliders | 2 |
| Dark QCD footprints beside QCD phase transition | 2 |
| 面向射频波段引力波和暗物质探测应用的超导量子探测器及其研究进展 | 2 |
| The Right-Handed Slepton Bulk Region for Dark Matter in Generalized No-scale F-SU(5) with Effective Super-Natural Supersymmetry | 2 |
| Recent progress of Dark SHINE R&D | 2 |
| Dark photon constraints from APEX cavity halo scope experiment | 3 |
| Dark Matter Detection with LIGO and Taiji/Tianqin/LISA | 3 |
| Dark matter brake and dark matter flip | 3 |
| Mapping the Dark Universe with astronomical observations | 3 |
| Impact of Baryons on the Signatures of Self-Interacting Dark Matter Halos | 3 |
| Constraints on Axion-like particles from the observation of Galactic Center | 3 |
| Dark star equation of states and Dark I-Love-Q | 3 |

| | |
|---|---|
| Probing Dark Matter with Gravitational-Wave Detectors in Space | 4 |
| Constraining dark matter properties from the survival of neutron star | 4 |
| Moon as a gravitational wave detector | 4 |
| 基于抗磁悬浮的精密力测量技术及其应用 | 4 |
| 超高分辨率超导弱力测量简介 | 4 |
| Searching for ultralight dark matter by amplifying weak magnetic field with quantum Zeno effect | 4 |
| 面向 1Hz 附近引力波探测的超导磁悬浮激光干涉仪 | 4 |
| 分子精密谱测量 | 4 |
| Anti-ferromagnets for dark matter detection | 5 |
| Dark Photon Dark Matter Radio Signal from the Milky Way Electron Density | 5 |
| Novel probes of dark matter with gravitational waves | 5 |
| Cosmological Signatures of new particles | 5 |
| The Realistic Scattering of Puffy Dark Matter | 5 |
| General WIMP Direct detections | 5 |
| Wide binary evaporation by solitons and minicluster halos | 5 |
| 暗物质半导体探测器中的 Migdal 效应与介质效应 | 6 |
| 基于人造原子系综低激发概率检测的射频波段暗光子探测 | 6 |
| Machine Learning Constraints on dark matter from 21cm signals | 6 |
| Gravitational waves from inflation and reheating | 6 |
| 总结致谢 | 6 |
| Dark matter signatures from the possible faintest dwarf satellite galaxy Ursa Major III | 6 |
| (科普) 在月球背面探寻宇宙黑暗时代 | 6 |
| (科普) 薛定谔猫能听见引力波吗 | 6 |
| Gong show& 晚宴; Gong Show 顺序名单: 1. 董婧; 2. Xiaolin Ma; 3. 刘齐斌; 4. YueWei Wen; 5. 虞成业; 6. 代昌杰; 7. 王越; 8. 王典为; 9. 张瑞咖; 10. 王元泓; 11. 王欣; 12. Yuanlin Gong; 13. 章怀瑾; 14. 聂昊明; 15. 雷润雨; 16 王永华 | 7 |
| Search for BSM T-odd mechanisms in pe scattering with a polarized hydrogen target | 7 |
| Search for BSM T-odd mechanisms in pe scattering with a polarized hydrogen target | 7 |
| Interpreting the extremely diffuse stellar distribution of Nube galaxy through fuzzy dark matter | 7 |

Probing Fundamental Physics via Supermassive Black Hole Observations 7

Tidal Formation of Dark Matter-Deficient Diffuse Galaxies by Self-Interacting Dark Matter
. 7

44

CDEX

45

PandaX

46

XENONnT

47

太极简介

48

第一性原理计算暗物质探测

49

自旋探测

50

dark matter detection at LHAASO

51

Non-canonical ALP Search in High-Intensity Physics

52

Some analyses of dark glueball from lattice

53

Ultralight dark matter and its detection

54

Fermionic Absorption Dark Matter and Neutrinos

55

New dark matter search channels at electron colliders

56

Dark QCD footprints beside QCD phase transition

57

面向射频波段引力波和暗物质探测应用的超导量子探测器及其研究进展

58

The Right-Handed Slepton Bulk Region for Dark Matter in Generalized No-scale F-SU(5) with Effective Super-Natural Supersymmetry

59

Recent progress of Dark SHINE R&D

60

Dark photon constraints from APEX cavity halo scope experiment

61

Dark Matter Detection with LIGO and Taiji/Tianqin/LISA

62

Dark matter brake and dark matter flip

63

Mapping the Dark Universe with astronomical observations

64

Impact of Baryons on the Signatures of Self-Interacting Dark Matter Halos

65

Constraints on Axion-like particles from the observation of Galactic Center

66

Dark star equation of states and Dark I-Love-Q

67

Probing Dark Matter with Gravitational-Wave Detectors in Space

68

Constraining dark matter properties from the survival of neutron star

69

Moon as a gravitational wave detector

70

基于抗磁悬浮的精密力测量技术及其应用

71

超高分辨率超导弱力测量简介

72

Searching for ultralight dark matter by amplifying weak magnetic field with quantum Zeno effect

73

面向 1Hz 附近引力波探测的超导磁悬浮激光干涉仪

74

分子精密谱测量

75

Anti-ferromagnets for dark matter detection

76

Dark Photon Dark Matter Radio Signal from the Milky Way Electron Density

77

Novel probes of dark matter with gravitational waves

78

Cosmological Signatures of new particles

79

The Realistic Scattering of Puffy Dark Matter

80

General WIMP Direct detections

81

Wide binary evaporation by solitons and minicluster halos

82

暗物质半导体探测器中的 Migdal 效应与介质效应

83

基于人造原子系综低激发概率检测的射频波段暗光子探测

84

Machine Learning Constraints on dark matter from 21cm signals

85

Gravitational waves from inflation and reheating

86

总结致谢

87

Dark matter signatures from the possible faintest dwarf satellite galaxy Ursa Major III

88

(科普) 在月球背面探寻宇宙黑暗时代

89

(科普) 薛定谔猫能听见引力波吗

90

Gong show& 晚宴; Gong Show 顺序名单: 1. 董婧; 2. Xiaolin Ma; 3. 刘齐斌; 4. YueWei Wen; 5. 虞成业; 6. 代昌杰; 7. 王越; 8. 王典为; 9. 张瑞咖; 10. 王元泓; 11. 王欣; 12. Yuanlin Gong; 13. 章怀瑾; 14. 聂昊明; 15. 雷润雨; 16 王永华。

91

Search for BSM T-odd mechanisms in pe scattering with a polarized hydrogen target

92

Search for BSM T-odd mechanisms in pe scattering with a polarized hydrogen target

93

Interpreting the extremely diffuse stellar distribution of Nube galaxy through fuzzy dark matter

94

Probing Fundamental Physics via Supermassive Black Hole Observations

95

Tidal Formation of Dark Matter-Deficient Diffuse Galaxies by Self-Interacting Dark Matter