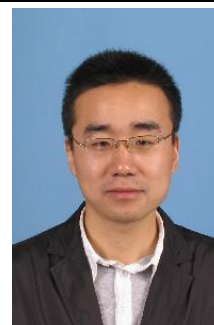


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**Education:**

- **Shanghai Jiao Tong University**, Shanghai, P.R. China
Ph.D. in Particle and Nuclear Physics (2009/09 – 2014/04),
Major in R&D of high sensitivity particle detector.
Advisor: Prof. Dr. Kaixuan Ni
Thesis: *Development for a Sensitive Dark Matter Detection Using Liquid Xenon*
Date of PhD defense: 2014/02/26
- **University of Shanghai for Science and Technology**, Shanghai, P.R. China
Master in Physics (2006/09 – 2009/07)
Advisor: Prof. Dr. Jianqi Shen
Thesis: *Multiple scattering effect in light scattering*
Date of Master defense: 2009/01/08
- **Liaocheng University**, Liaocheng, Shandong, P.R. China
B.S. in Physics (2002/09 – 2006/07)

Employment:

- **University of California, San Diego**, US
Postdoctoral Associate (2017/05 - Now)
Advisor: Prof. Dr. Kaixuan Ni
- **University of Zürich**, Zürich, Switzerland
Postdoctoral Associate (2014/05 – 2017/04)
Advisor: Prof. Dr. Laura Baudis

Research Interests/Activities:

- Particle/Radiation detector development.
- Dark matter and neutrino physics, particle astrophysics.
- Member of the PandaX collaboration for direct dark matter detection.
- Member of the XENON & DARWIN collaboration for direct dark matter detection.

Technical Skills:

- Particle detector simulation by Geant4, Garfield++, Data analysis by ROOT, C++, Python.
- Hardware structure development and software design by SolidWorks, AutoCAD.
- Electric field simulation by COMSOL, ANSYS.

Publications

XENON1T Collaboration:

1. *First Dark Matter Search Results from the XENON1T Experiment*
XENON1T Collaboration (E. Aprile et al)
[Phys. Rev. Lett. 119, 181301 \(2017\), \[arXiv:1705.06655\]](#)
2. *The XENON1T Dark Matter Experiment*,
XENON1T Collaboration (E. Aprile et al)
[Eur. Phys. J. C \(2017\) 77: 881, \[arXiv:1708.07051\]](#)
3. *Physics reach of the XENON1T dark matter experiment*,
XENON1T Collaboration (E. Aprile et al).
[JCAP 04 \(2016\) 027, \[arXiv:1512.07501\]](#)
4. *Material radioassay and selection for the XENON1T dark matter experiment*
XENON1T Collaboration (E. Aprile et al),
[Eur. Phys. J. C \(2017\) 77: 890, \[arXiv:1705.01828\]](#)

XENON100 Collaboration:

5. *Intrinsic backgrounds from Rn and Kr in the XENON100 experiment*,
XENON100 Collaboration (E. Aprile et al), [\[arXiv:1708.03617v1\]](#)
6. *Search for magnetic inelastic dark matter with XENON100*,
XENON100 Collaboration (E. Aprile et al)
[JCAP 10 \(2017\) 039, \[arXiv:1704.05804\]](#)
7. *Search for Bosonic Super-WIMP Interactions with the XENON100 Experiment*,
XENON100 Collaboration (E. Aprile et al)
[Phys. Rev. D 96, 122002, \[arXiv:1709.02222\]](#)
8. *Effective field theory search for high-energy nuclear recoils using the XENON100 dark matter detector*, **XENON100 Collaboration** (E. Aprile et al)
[Phys.Rev. D 96 042004 \(2017\), \[arXiv:1705.02614\]](#)
9. *Online Rn-222 removal by cryogenic distillation in the XENON100 experiment*,
XENON100 Collaboration (E. Aprile et al)
[Eur. Phys. J. C 77, 358 \(2017\), \[arXiv:1702.06942\]](#)
10. *Search for Double Electron Capture of Xe-124 with XENON100*,
XENON100 Collaboration (E. Aprile et al)
[Phys. Rev. C 95, 024605 \(2017\), \[arXiv:1609.03354\]](#)
11. *Search for Double Electron Capture of Xe-124 with XENON100*,
XENON100 Collaboration (E. Aprile et al).
[Phys. Rev. C 95, 024605 \(2017\), \[arXiv:1609.03354\]](#)
12. *Search for Electronic Recoil Event Rate Modulation with 4 Years of XENON100 Data*, **XENON100 Collaboration** (E. Aprile et al). (2017)

[Phys. Rev. Lett. 118, 101101 \(2017\), \[arXiv:1701.00769\]](#)

13. *Results from a Calibration of XENON100 Using a Source of Dissolved Radon-220*,
XENON100 Collaboration (E. Aprile et al). (2016)
[Phys. Rev. D 95, 072008 \(2017\), \[arXiv:1611.03585\]](#)
14. *XENON100 dark matter results from a combination of 477 live days*,
XENON100 Collaboration (E. Aprile et al)
[Phys. Rev. D 94, 122001 \(2016\), \[arXiv:1609.06154\]](#)
15. *Low-mass dark matter search using ionization signals in XENON100*,
XENON100 Collaboration (E. Aprile et al).
[Phys. Rev. D 94, 092001\(2016\), \[arXiv:1605.06262\]](#)

XENON Collaboration:

16. *Removing krypton from xenon by cryogenic distillation to the ppq level*,
XENON Collaboration (E. Aprile et al)
[Eur. Phys. J. C \(2017\) 77: 275, \[arXiv:1612.04284\]](#)

DARWIN Collaboration:

17. *DARWIN: towards the ultimate dark matter detector*,
DARWIN Collaboration (J. Aalbers et al).
[JCAP 1611 \(2016\) no.11, 017, \[arXiv:1606.07001\]](#)

Lab Measurements:

18. *Scintillation and ionization responses of liquid xenon to low energy electronic and nuclear recoils at drift fields from 236V/cm to 3.93kV/cm*,
Qing Lin, Jialing Fei, Fei Gao, Jie Hu, Yuehuan Wei, Xiang Xiang, Hongwei Wang, and Kaixuan Ni, [Phys. Rev. D 92, 032005 \(2015\), \[arXiv:1505.00517\]](#)
19. *Qualification Tests of the R11410-21 Photomultiplier Tubes for the XENON1T Detector*, P. Barrow, L. Baudis, D. Cichon, M. Danisch, D. Franco, F. Kaether, A. Kish, M. Lindner, T. Marrodan Undagoitia, D. Mayani, L. Rauch, Y. Wei, J. Wulf. [JINST 12 P1024 \(2017\), \[arXiv:1609.01654\]](#)

Ph.D 2009/09 ~ 2014/04:

- 1) *First dark matter search results from the PandaX-I experiment*,
PandaX-I Collaboration (MengJiao Xiao et al)
[Sci. China Phys. Mech. Astron. \(2014\) 57: 2024, \[arXiv:1408.5114v2\]](#)
- 2) *PandaX: A Liquid Xenon Dark Matter Experiment at CJPL*,
PandaX-I Collaboration (MengJiao Xiao et al)
[Sci China-Phys Mech Astron, \(2014\), 57: 1476, \[arXiv:1405.2882\]](#)
- 3) *High Resolution Gamma Ray Detection in a Two-Phase Xenon Time Projection Chamber*,
Q Lin, Y Wei, J Bao, J Hu, X Li, W Lorenzon, K Ni, M Schubnell, M Xiao and X Xiao.
[2014 JINST 9 P04014, \[arXiv:1309.5561\]](#)

- 4) *Detection of Alpha Particles and Low Energy Gamma Rays by Thermo-Bonded Micromegas in Xenon Gas*,
Yuehuan Wei, Liang Guan, Zhiyong Zhang, Qing Lin, Xiaolian Wang, Kaixuan Ni and Tianchi Xhao.
[IEEE Trans. Nucl. Sci.](#), vol. 60, no.4, p. 3008, 2013, [[arXiv:1308.2073](#)]
- 5) *Study of Light Detection and Sensitivity for a Ton-scale Liquid Xenon Dark Matter Detector*, **Yuehuan Wei**, Qing Lin, Xiang Xiao, Kaixuan Ni.
[2013 JINST 8 T06002](#), [[arXiv:1405.2482](#)]
- 6) *Dark matter direct detection based on liquid xenon (in Chinese)*,
Ni K X, **Wei Y H**. [Sci Sin Phys Mech Astron](#), 2011, 41:1414-1422.

Conferences:

- 1) [The XENONIT Dark Matter Experiment](#),
Y. Wei, SPS Meeting, Lugano, 25 August 2016
- 2) [Photodetectors for the XENONIT Dark Matter Experiment](#),
Y. Wei, 2016 IEEE NSS/MIC, Strasbourg, 30 October 2016