ZHANG, Ce

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EMPLOYMENT

Oct. 2022 – Present **Postdoctoral research associate**
University of Liverpool

EDUCATION

Sep. 2017 – Sep. 2022 **Ph.D. (Natural Science)**
Peking University

Sep. 2013 – Sep. 2017 **Bachelor of Science (Physics)**
Peking University

FUNDING & GRANTS

2019 - 2021 **State Scholarship from China Scholarship Council (CSC)**
Visiting student at High Energy Accelerator Research Organization (KEK)

2018 - 2019 **Visiting Student Grant at KEK**

2015 - 2016 **President Fund**
Undergraduate research program of Peking University

MAJOR COLLABORATIONS AND ROLES

2022 – Present
Projects

Muon g-2 experiment at Fermilab

- **Data analysis (Runs 2-3 and 4-6)** on precession frequency and beam dynamics
- **Task Force Leader** on the Residual Slow-Term effect in the precession analysis

MUonE project at CERN

- **Development of a framework** for hadronic α extraction and $\mu - e$ scattering simulation

2017 - 2022
PhD Project

Muon cooling for the J-PARC Muon g – 2/EDM experiment

- **Thermal muon source** using muonium laser ionization with silica aerogel
- **J-PARC Muon beamline** simulation and operation, including DAQ, high voltage systems, vacuum systems and related components

2017 - 2022
Undergraduate Projects

Radiative decay of ψ(3770) to pseudo-scalers at BESIII
New physics search J/ψ → pe at BESIII

SKILLS

Programming languages	C/C++, python
Simulation	Geant4, Opera, CST studio
Analysis	ROOT, MATLAB
Engineering drawing	AutoCAD
Electronics	NIM, PLC, EPICS, FPGA

PUBLICATIONS

[1] Muon g-2 Collaboration et al., *Measurement of the Positive Muon Anomalous Magnetic Moment to 127 ppb*, arXiv:2506.03069. – ***Data analysis and paper draft; Submitted to PRL***

[2] Muon g−2 Collaboration et al., *Detailed Report on the Measurement of the Positive Muon Anomalous Magnetic Moment to 0.20 Ppm*, Phys. Rev. D **110**, 032009 (2024). - ***Data analysis and paper draft***

[3] The Muon g−2 Collaboration et al., *Measurement of the Positive Muon Anomalous Magnetic Moment to 0.20 Ppm*, Phys. Rev. Lett. **131**, 161802 (2023). - ***Data analysis and paper draft***

[4] C. Zhang et al., *Modeling the Diffusion of Muonium in Silica Aerogel and Its Application to a Novel Design of Multi-Layer Target for Thermal Muon Generation*, Nucl. Instrum. Methods Phys. Res. Sect. Accel. Spectrometers Detect. Assoc. Equip. **1042**, 167443 (2022). - ***Paper original draft and corresponding author***

[5] C. Zhang et al., *Simulation Study of Laser Ionization of Muonium by 1S-2S Excitation for the Muon g - 2/EDM Experiment at J-PARC*, in *Proceedings of the 3rd J-PARC Symposium (J-PARC2019)*, Vol. 33 (Journal of the Physical Society of Japan, 2021). - ***Paper original draft and corresponding author***

PRESENTATIONS

Conferences

09/2025 NuFact 2025 - International Workshop on Neutrinos from Accelerators (*Invited talk*, scheduled)
Fermilab Muon g − 2 Experiment: The Final Chapter

09/2024 PSI Workshop - Exploring BSM physics with muons (*Personally invited plenary*)
Fermilab Muon g − 2 Experiment

06/2024 MITP Tropical Workshop 2024 (*Personally invited plenary* at Mainz)
J-PARC Muon g − 2/EDM experiment

04/2024 Workshop on Muon Physics at the Intensity and Precision Frontiers (*plenary* at Peking University)
The MUonE Experiment: Understanding Muon g−2 Puzzle via μ − e Scattering

03/2024 IOP annual meeting
Status of Fermilab Muon g − 2 Experiment

08/2022 The 13th International Workshop on e+e- collisions from Phi to Psi (*Plenary* at Fudan University)
Muon g − 2/EDM experiment at J-PARC

07/2022 NuFact 2022 - International Workshop on Neutrinos from Accelerators (*Plenary,* online)
Status of the Muon g − 2/EDM experiment at J-PARC

08/2021 International Workshop on Fundamental Physics Using Atoms (*Plenary,* online)
J-PARC Muon g − 2/EDM experiment

03/2021 JPS 76th Annual meeting (*Plenary,* online)
Project status of the muonium laser-ionization using the 1S-2S transition

09/2020 JPS Autumn meeting (online)
Status of laser ionization of muonium via 1S-2S transition at J-PARC

01/2020 International Workshop on Fundamental Physics Using Atoms (*Personally invited* at RIKEN, Japan)
Preparation for experiment of muonium ionization with 1S-2S excitation

09/2019 JPS Autumn meeting (Yamagata University, Japan)
Ionization of thermal muonium via 1S-2S transition by pulsed laser

Seminars

05/2025	Seminar at Institute of Modern Physics (IMP), Chinese Academy of Sciences, China Introduction to Muon Cooling technology at J-PARC
03/2025	Seminar at Tsung-Dao Lee Institute (TDLI), China The Status of MUonE experiment
12/2024	HEP Seminar, UCL, UK The MUonE experiment: Understanding Muon $g-2$ Puzzle via $\mu-e$ Scattering
11/2024	HEP Seminar, University of Oxford, UK Recent Status and Challenges of the MUonE Experiment
10/2024	Seminar at Imperial College, UK Status of MUonE experiment
09/2024	HEP seminar, School of Physics, Sun Yat-sen University, China Muon g-2: When Experiment Meets Theory
08/2024	Bohr seminar, The University of Manchester, UK Progress and Status of the MUonE Experiment
06/2024	HEP Seminar, University of Cambridge, UK Status of MUonE experiment
10/2023	HEP Seminar, University of Warwick, UK New Results from the Muon g − 2 Experiment at Fermilab
09/2023	INPAC seminar, Shanghai Jiaotong University, China Introduction to the MUonE experiment
05/2022	PKU Young Researcher HEP seminar, Peking University, China Introduction to Muon Beam and Cooing
05/2021	Beihang HEP seminar, Beihang University, China J-PARC g-2/EDM experiment
12/2020	KEK S-type project seminar, KEK, Japan Beam optics design at J-PARC S2 and status of the slow muon beam-line

OUTREACH

Co-author, *"Is there new physics beyond the Standard Model of particle physics? Our finding will help settle the question"*, **The Conversation**, 31 July, 2023.

https://theconversation.com/is-there-new-physics-beyond-the-standard-model-of-particle-physics-our-finding-will-help-settle-the-question-211280
A public-facing article explaining the muon g-2 measurements results