

ZHANG, Ce (Cedric) 张 策

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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 and Supervision **Muon g-2 experiment at Fermilab**

- **Spearheading the data analysis** on the muon precession frequency and beam dynamics corrections within the Europa Group
- Residual Slow-Term Systematic **Task Force Leader** for the muon precession analysis

MUonE project at CERN

- **Data analysis** on running α extraction and $\mu - e$ scattering simulation framework developments

Co-supervision of PhD students on the Fermilab g-2 and MUonE projects

2017 - 2022
PhD Project **Thermal muon source development for J-PARC Muon g – 2/EDM experiment**

- Development of **muon cooling technology** utilizing Muonium laser ionization combined with silica aerogel
- **Muon beamline simulation and operation**, including DAQ, high voltage systems, vacuum systems and related components.

2017 - 2022
Undergraduate Projects **Radiative decay of $\psi(3770)$ to pseudo-scalars at BESIII**
New physics search $J/\psi \rightarrow pe$ at BESIII

SKILLS

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

PRESENTATIONS

Conferences

- 09/2024 **Fermilab Muon $g - 2$ Experiment**
PSI workshop “Exploring BSM physics with muons”
- 06/2024 **J-PARC Muon $g - 2$ /EDM experiment**
MITP Tropical Workshop 2024 (Mainz)
- 04/2024 **The MUonE Experiment: Understanding Muon $g-2$ Puzzle via $\mu-e$ Scattering**
MIP 2024 (Peking University)
- 03/2024 **Status of Fermilab Muon $g - 2$ Experiment**
IOP 2024
- 08/2022 **Muon $g - 2$ /EDM experiment at J-PARC**
PhiPsi 2022 (Fudan University)
- 07/2022 **Status of the Muon $g - 2$ /EDM experiment at J-PARC**
NuFACT 2022 (online)
- 08/2021 **J-PARC Muon $g - 2$ /EDM experiment**
FPUA 2021 (online)
- 03/2021 **Project status of the muonium laser-ionization using the 1S-2S transition**
JPS Annual (76th) meeting (online)
- 09/2020 **Status of laser ionization of muonium via 1S-2S transition at J-PARC**
JPS Autumn meeting (online)
- 01/2020 **Preparation for experiment of muonium ionization with 1S-2S excitation**
FPUA 2020 (RIKEN)
- 09/2019 **Ionization of thermal muonium via 1S-2S transition by pulsed laser**
JPS Autumn meeting (Yamagata University)

Seminars

- 12/2024 **The MUonE experiment: Understanding Muon $g - 2$ Puzzle via $\mu - e$ Scattering**
UCL seminar
- 11/2024 **Recent Status and Challenges of the MUonE Experiment**
Oxford seminar
- 10/2024 **Status of MUonE experiment**
Seminar at Imperial College
- 08/2024 **Progress and Status of the MUonE Experiment**
Manchester Bohr seminar
- 06/2024 **Status of MUonE experiment**
Cambridge seminar
- 10/2023 **New Results from the Muon $g - 2$ Experiment at Fermilab**
Warwick seminar
- 09/2023 **Introduction to MUonE experiment**
INPAC seminar (Shanghai Jiaotong University)
- 05/2021 **J-PARC $g-2$ /EDM experiment**
Beihang seminar (Beihang University)
- 12/2020 **Beam optics design at J-PARC S2 and status of the slow muon beam-line**
KEK S-type project seminar (online)

PUBLICATIONS

- [1] 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).
- [2] 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).
- [3] 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).
- [4] 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).