Yinghui GUAN **Curriculum Vitae**

CONTACT INFORMATION

High Energy Accelerator Research Organization (KEK), Oho 1-1, Tsukuba, Ibaraki, Japan (305 0801),

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RESEARCH INTEREST

New Physics Beyond Standard Model, Hadron Physics, Rare Decays.

EDUCATION

2013, Ph.D. in Science, **University of Chinese Academy of Sciences**, Beijing, China.
Dissertation: Improvement Study of Event Start Time Reconstruction and Measurement of $D^0 - \overline{D}^0$ Mixing Parameter y at BESIII.
Advisor:Yangheng Zheng.

2008, Bachelor in Science, **Department of Physics, Shandong Normal University**, Jinan, China.

GRANTS AND HONORS

2012 Honorable President Scholarship of the Chinese Academy of Sciences.

EXPERIENCE

- Jun. 2015 – Present, **Postdoctoral fellow, Indiana University & Pacific Northwest National Laboratory, U.S, based on Belle and BelleII experiment at KEK, Japan**
  Involved in commissioning of the K_L^0-Muon (KLM) detector at BelleII, help with electronic boards installation, cabling, debugging the electronics and data acquisition (DAQ) chain.
  Analyze the cosmic-ray-test data to understand the performance of the hardware and software of the KLM.
  Involved in implementation of slow control software for controlling and monitoring high voltage (HV) system and run control software controlling DAQ for KLM.
  Development and maintenance of the reconstruction software for KLM.
  Data analysis on spin physics at Belle, studying on the transverse polarization of $\Lambda/\bar{\Lambda}$.
- Jun. 2013 – Jun. 2015, **Postdoctoral fellow, Institute of High Energy Physics (IHEP), Beijing, China**
  Measurement of Collins Asymmetries at BESIII experiment;
  Measurement of the radiative leptonic decay of $D^{\pm}$ meson at BESIII experiment.
- Sep. 2008 – Jun. 2013, **Graduate student, University of Chinese Academy of Sciences, Beijing, China**
  Measurement of $D^0 - \bar{D}^0$ mixing parameter $y_{\rm CP}$ using quantum coherence between pair-produced $D^0 - \bar{D}^0$ mesons at BESIII experiment.
  Involved in studying the relative strong phase in $D^0 \to K^-\pi^+$ decay.
  Developed a least square fitter to extract physics parameters from the correlated experimental data.
  In charge of offline calibration of event start time (T_0) and maintenance of the T_0 reconstruction algorithm at BESIII. Studied on the efficiency and systematic uncertainties of the reconstruction of T_0.

Publications

1. A. Abdesselam et al. [Belle Collaboration], "Observation of transverse $\Lambda/\bar{\Lambda}$ hyperon polarization in e^+e^- annihilation at Belle", arXiv:1611.06648 [hep-ex] (2016).

2. M. Ablikim et al. [BESIII Collaboration], "Search for the radiative leptonic decay $D^+ \to \gamma e^+ \nu_e$", Phys. Rev. D 95, 071102(R) (2016).

3. M. Ablikim et al. [BESIII Collaboration], "Measurement of azimuthal asymmetries in inclusive production of charged π pairs in e^+e^- annihilation", Phys. Rev. Lett. 116, 042001 (2016).

4 . M. Ablikim et al. [BESIII Collaboration], "Measurement of $y_{\rm CP}$ in $D^0\bar{D}^0$ oscillation using quantum correlations in $e^+e^- \to D^0\bar{D}^0$ at $\sqrt{s} = 3.773$ GeV", Phys. Lett. B 744, 339 (2015).

5. Yinghui Guan, "Strong phase in $D^0 \to K^-\pi^+$ decay and measurements from CP-tagged D^0 decays at BESIII", PoS (Hadron 2013), 042 (2014).

6. Yinghui Guan, Xiao-Rui Lu, Yangheng Zheng, Yifang Wang, "Study on Efficiency of Event Start Time Determination at BESIII", Chinese Physics C 38, 016201 (2013).

7. Yinghui Guan, Xiao-Rui Lu, Yangheng Zheng, Yong-Sheng Zhu, "Simultaneous least squares fitter based on the Lagrange multiplier method", Chinese Physics C 37, 106201 (2013).

Presentations

1. Yinghui Guan (on behalf of the Belle II Collaboration) "Studies of missing energy decays at Belle II", Particles and Nuclei International Conference 2017 (PANIC2017), Beijing, China, 2017.

2. Yinghui Guan (on behalf of the Belle Collaboration), "Study on the transverse polarization of $\Lambda/\bar{\Lambda}$ at Belle", The 22nd International Symposium on Spin Physics (SPIN2016), Urbana-Champaign, U.S., 2016.

3 . Yinghui Guan (on behalf of the BESIII Collaboration), "Measurement of Double Collins Asymmetries at BESIII", The 21st International Symposium on Spin Physics (SPIN2014), Beijing, China, 2014.

4. Yinghui Guan (on behalf of the BESIII Collaboration), "Strong phase in $D^0 \to K^-\pi^+$ decay and $y_{\rm CP}$ measurements from CP-tagged D^0 decays at BESIII", The XV International Conference on Hadron Spectroscopy (Hadron 2013), Nara, Japan, 2013.

5. Yinghui Guan (on behalf of the BESIII Collaboration), "D Meson Results at BESIII", The 10th Heavy Flavor and CP-Violation Workshop (HFCPV-2012), Qingdao, China, 2012.

Knowledge & Skills

Knowledge & Technical skills

- Particle detection techniques.
- C/C++, Unix Shell programming, Python.
- ROOT data analysis framework

Language

- Chinese: native
- English: working language