

BIOGRAPHICAL SKETCH

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NAME: Chiaki Yanagisawa

eRA COMMONS USER NAME (credential, e.g., agency login): N/A

POSITION TITLE: Professor at CUNY/BMCC and Research Professor at Stony Brook University

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
University of Tokyo, Department of Fundamental Sciences, Tokyo, Japan	B. Sc	03/1975	Physics/Mathematics/ Chemistry/Biology
University of Tokyo, Department of Physics, Tokyo, Japan; Advisor: Prof. M. Koshiha	M. Sc Ph. D	03/1977 03/1981	Particle Physics Particle Physics

A. Positions and Honors**Positions and Employment**

1981 – 1983 Research Associate, Rutherford Appleton Lab, UK

1983 – 1988 Research Associate, Stony Brook University, US

1988 – 1990 Senior Research Associate, Stony Brook University, US

1990 – 1997 Research Assistant Professor, Stony Brook University, US

1997 – 2002 Senior Research Scientist, Stony Brook University, US

2003 – 2010 Research Associate Professor, Stony Brook University, US (2008 – present non-salaried)

2011 – present Research Professor, Stony Brook University, US (non-salaried)

2008 – 2016 Assistant Professor, Borough of Manhattan Community College/City University of New York, US

2016 – 2017 Associate Professor, Borough of Manhattan Community College/City University of New York, US

2017 – present Professor, Borough of Manhattan Community College/City University of New York, US

Other Experience and Professional Memberships

Editorial Board Member: Frontiers in Physics, online journal, associate editor for high energy and astroparticle physics 2013 - present

Research Proposal Reviewer:

2011 For the US Department of Energy 2011 Phase-I SBIR/STTR (Small Business Innovation Research and Small business Technology Transfer) Program Funding Opportunity

2011 For the US Department of Energy sponsored funding, the Collider Detector Research and Development Program (CDRD)

2012 For the US Department of Energy 2012 Phase-II SBIR/STTR Program Funding Opportunity

2014 For the US Department of Energy 2014 Phase-II SBIR/STTR Program Funding Opportunity

2016 For the US National Science Foundation a research proposal review in high energy physics

Membership: Member of American Physical Society

Honors

- 1995 Special Complimentary Prize of European Physical Society with the JADE collaboration for the discovery of the gluon
 1998 Asahi Prize with the Super-Kamiokande Collaboration for the discovery of neutrino mass
 2016 Breakthrough Prize for Fundamental Physics for the discovery of neutrino oscillation together with the Super-Kamiokande, T2K and K2K collaborators

Fellowships

- 1978 – 1979 Yamada Science Foundation of Japan
 1995 Japan Society for the Promotion of Science
 1994 Yamada Science Foundation of Japan
 2002 Japan Society for the Promotion of Science
 2015 - 2016 City University of New York Chancellor's Fellowship

B. Selected Publications (in chronological order)

(Peer reviewed publications since 2013, the sizes of the SK, T2K and K2K collaboration are ~115, ~357, and ~155 people, respectively. **Exception is a paper from 1998 that won 2015 Nobel Prize in Physics and 2016 Breakthrough Prize for Fundamental Physics**)

1. Evidence for Oscillation of Atmospheric Neutrinos, Y. Fukuda *et al.* (Super-Kamiokande Collaboration), Phys. Rev. Lett. 81, 1562 (1998)
2. The T2K Neutrino Flux Prediction, K. Abe *et al.* (T2K collaboration), Phys. Rev. D87 (2013) 012001
3. Evidence for the Appearance of Atmospheric Tau Neutrinos by Super-Kamiokande, K. Abe *et al.* (Super-Kamiokande collaboration), Phys. Rev. Lett. 110 (2013) 181802
4. Measurement of the Inclusive ν_μ Charged Current Cross Section on Carbon in the Near Detector of the T2K Experiment, K. Abe *et al.* including C. Yanagisawa (T2K collaboration), Phys. Rev. D87 (2013) 092003
5. Evidence of Electron Neutrino Appearance in a Muon Neutrino Beam, K. Abe *et al.* (T2K collaboration), Phys. Rev. D88 (2013) 032002
6. Measurement of Neutrino Oscillation Parameters from Muon Neutrino Disappearance with an Off-axis Beam, K. Abe *et al.* (T2K collaboration), Phys. Rev. Lett. 111 (2013) 211803
7. Calibration of the Super-Kamiokande Detector, K. Abe *et al.* (Super-Kamiokande collaboration), Nucl. Instrum. Meth. A737, 253-272 (2014)
8. Observation of Electron Neutrino Appearance in a Muon Neutrino Beam, K. Abe *et al.* (T2K collaboration), Phys. Rev. Lett. 112, 061802 (2014)
9. Search for Dinucleon Decay into Kaons in Super-Kamiokande, M. Litos *et al.* (Super-Kamiokande Collaboration), Phys. Rev. Lett. 112, 131803 (2014)
10. First Indication of Terrestrial Matter Effects on Solar Neutrino Oscillation, A. Renshaw *et al.* (Super-Kamiokande collaboration), Phys. Rev. Lett. 112, 091805 (2014)
11. Precise Measurement of the Neutrino Mixing Parameter θ_{23} from Muon Neutrino Disappearance in an Off-axis Beam, K. Abe *et al.* (T2K collaboration), Phys. Rev. Lett. 112, 181801 (2014)
12. Looking for cosmic neutrino background, C. Yanagisawa, Frontiers in Physics 2, 00030 (2014)
13. Measurement of the Intrinsic Electron Neutrino Component in the T2K Neutrino Beam with the ND280 Detector, K. Abe *et al.* (T2K collaboration), Phys. Rev. D89 (2014) 092003
14. Measurement of the Inclusive ν_μ Charged Current Cross Section on Iron and Hydrocarbon in the T2K On-axis Neutrino Beam, K. Abe *et al.* (T2K collaboration), Phys. Rev. D90 052010 (2014)
15. Search for Proton Decay via $p \rightarrow \nu K^+$ Using 260 kiloton-year Data of Super-Kamiokande, K. Abe *et al.* (Super-Kamiokande collaboration), Phys. Rev. D90 072005 (2014)
16. Search for Trilepton Nucleon Decay via $p \rightarrow e^+ \nu \nu$ and $p \rightarrow \mu^+ \nu \nu$ in the Super-Kamiokande Experiment, V. Takhistov *et al.* (Super-Kamiokande collaboration), Phys. Rev. Lett. 113 101801 (2014)
17. Search for Nucleon Decay via $n \rightarrow \bar{\nu} \pi^0$ and $p \rightarrow \bar{\nu} \pi^+$ in Super-Kamiokande, K. Abe *et al.* (Super-Kamiokande Collaboration), Phys. Rev. Lett. 113 121801 (2014)
18. Measurement of the Inclusive Electron Neutrino Charged Current Cross Section on Carbon with the T2K Near Detector, K. Abe *et al.* (T2K Collaboration), Phys. Rev. Lett. 113 241803 (2014)

19. Search for Neutrinos from Annihilation of Captured Low-Mass Dark Matter Particles in the Sun by Super-Kamiokande, K. Choi et al. (Super-Kamiokande Collaboration), Phys. Rev. Lett. 114 141301 (2014)
20. Supernova Relic Neutrino Search with Neutron Tagging at Super-Kamiokande-IV, H. Zhang et al. (Super-Kamiokande collaboration), Astropart. Phys. 60, 41-46 (2015)
21. Search for Short Baseline ν_e Disappearance with the T2K Near Detector, K. Abe et al. (T2K Collaboration), Phys. Rev. D91 051102 (2015)
22. Test of Lorentz Invariance with Atmospheric Neutrinos, K. Abe et al. (Super-Kamiokande Collaboration), Phys. Rev. D91 052003 (2015)
23. Neutrino Oscillation Physics Potential of the T2K Experiment, K. Abe et al. (T2K Collaboration), PTEP 2015 043C01 (2015)
24. Limits on Sterile Neutrino Mixing Using Atmospheric Neutrino in Super-Kamiokande, K. Abe et al. (Super-Kamiokande Collaboration), Phys. Rev. D91 052019 (2015)
25. Measurement of the ν_μ Charged-Current Quasielastic Cross Section on Carbon with the ND280 Detector at T2K, K. Abe et al. (T2K Collaboration), Phys. Rev. D92 112003 (2015)
26. Measurements of Neutrino Oscillation in Appearance and Disappearance Channels by the T2K Experiment with 6.6×10^{20} Protons on Target, K. Abe et al. (T2K Collaboration), Phys. Rev. D91 072010 (2015)
27. Physics Potential of a Long-Baseline Neutrino Oscillation Experiment Using a J-PARC Neutrino Beam and Hyper-Kamiokande, K. Abe et al. (Hyper-Kamiokande Proto-Collaboration), PTEP 2015 053C02 (2015)
28. Measurement of the ν_μ Charged Current Quasielastic Cross Section on Carbon with the T2K On-Axis Neutrino Beam, K. Abe et al. (T2K Collaboration), Phys. Rev. D91 112002 (2015)
29. Measurement of the Electron Neutrino Charged-Current Interaction Rate on Water with the T2K ND280 π^0 Detector, K. Abe et al. (T2K Collaboration), Phys. Rev. D91 112010 (2015)
30. Search for Dinucleon Decay into Pions at Super-Kamiokande, J. Gustafson et al. (Super-Kamiokande Collaboration), Phys. Rev. D91 072009 (2015)
31. Search for Nucleon and Dinucleon Decays with an Invisible Particle and a Charged Lepton in the Final State at the Super-Kamiokande Experiment, V. Takhistov et al. (Super-Kamiokande Collaboration), Phys. Rev. Lett. 115 121803 (2015)
32. First Measurement of Radiative Isotope Production Through Cosmic-ray Muon Spallation in Super-Kamiokande IV, Y. Zhang et al. (Super-Kamiokande Collaboration), Phys. Rev. D93 012004 (2016)
33. First Measurement of Radiative Isotope Production Through Cosmic-ray Muon Spallation in Super-Kamiokande IV, Y. Zhang et al. (Super-Kamiokande Collaboration), Phys. Rev. D93 012004 (2016)
34. Upper Bound on Neutrino Mass Based on T2K Neutrino Timing Measurements, K. Abe et al. (T2K Collaboration), Phys. Rev. D93 012006 (2016)

C. Research Support

On-going Research

The participation in the Super-Kamiokande Experiment in Japan to study neutrino properties including neutrino oscillation, and search for nucleon decays, dark matter and neutrinos from supernovae.

The participation in the T2K Experiment in Japan to study neutrino properties including neutrino oscillation.

The participation in the both experiment is partially funded by the US Department of Energy through Stony Brook University and also by the Professional Staff Congress of the City University of New York (PSC-CUNY).

July 2012 – June 2013: PI of PSC-CUNY research award for further study of neutrino oscillation using the long baseline neutrino oscillation experiment T2K, \$3,500

July 2013 – June 2014: PI of PSC-CUNY research award for precise measurements of neutrino oscillation parameters with the T2K experiment, \$3,500

July 2014 – June 2015: PI of PSC-CUNY research award for search for CP violation in Neutrino Oscillation and Precise Measurements of Neutrino Oscillation Parameters with the T2K and SK Experiments, \$3,500.

Past Research

September 2012 – June 2013: Co-PI of CUNY Community College Collaborative Incentive Research Grant (C3IRG) for super-resolution microscope to study cell division, \$15,000.