

Toshiyuki NAKANO

Position	Associate Professor
Lab/Group	Fundamental Particle Physics Laboratory (F Lab)
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Education and Degrees

March, 1991, *B.S.*, Nagoya University

March, 1993, *M.S.*, Nagoya University

March, 1998, *Ph.D.*, Nagoya University

Positions

April, 1998 - March, 2000, *JSPS Research Fellow (PD)*, Nagoya University

April, 2000 - June, 2002, *Postdoctoral Researcher*, Department of Physics,
Nagoya University

July, 2002, *Assistant Professor*, Graduate School of Science, Nagoya University

April, 2011 - November, 2022, *Lecturer*, Graduate School of Science,
Nagoya University

April, 2011 - present, *Associate Professor*, Graduate School of Science,
Nagoya University

Honors

2005, Academic award of the society of Photography and Imaging of Japan

2012, Masao Horiba Awards

2014, 21st Outstanding Paper Award of the Physical Society of Japan

2017, The Ichimura Prize in Science for Distinguished Achievement

Research

Particle Physics, Astrophysics (Experiment) and Detectors.

[Nagoya University Faculty Profile Page \(link\)](#)

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Selected Publications

1. Final Results of the OPERA Experiment on $\nu_{\mu} \rightarrow \nu_{\tau}$ Appearance in the CNGS Neutrino Beam. By OPERA Collaboration (N. Agafonova et al.), Phys.Rev.Lett. 120 (2018) no.21, 211801, Erratum: Phys.Rev.Lett. 121 (2018) no.13, 139901.
2. Hyper-track selector nuclear emulsion readout system aimed at scanning an area of one thousand square meters. Masahiro Yoshimoto, Toshiyuki Nakano, Ryosuke Komatani, Hiroaki Kawahara., PTEP 2017 (2017) no.10, 103H01.
3. Discovery of τ Neutrino Appearance in the CNGS Neutrino Beam with the OPERA Experiment, OPERA Collaboration (N. Agafonova (Moscow, INR) et al.), Phys.Rev.Lett. 115 (2015) no.12, 121802
4. Observation of tau neutrino appearance in the CNGS beam with the OPERA experiment, OPERA Collaboration (N. Agafonova (Moscow, INR) et al.), PTEP 2014 (2014) no.10, 101C01
5. Evidence for $\nu_{\mu} \rightarrow \nu_{\tau}$ appearance in the CNGS neutrino beam with the OPERA experiment, OPERA Collaboration (N. Agafonova (Moscow, INR) et al.), Phys.Rev. D89 (2014) no.5, 051102
6. Search for $\nu_{\mu} \rightarrow \nu_e$ oscillations with the OPERA experiment in the CNGS beam, OPERA Collaboration (N. Agafonova (Moscow, INR) et al.), JHEP 1307 (2013) 004, Addendum: JHEP 1307 (2013) 085
7. Development of a new automatic nuclear emulsion scanning system, S-UTS, with continuous 3D tomographic image read-out., K. Morishima, T. Nakano (Nagoya U.), JINST 5 (2010) P04011
8. Observation of a first ν_{τ} candidate in the OPERA experiment in the CNGS beam., OPERA Collaboration (N. Agafonova (Moscow, INR) et al.), Phys.Lett. B691 (2010) 138-145
9. Final results on $\nu(\mu) \rightarrow \nu(\tau)$ oscillation from the CHORUS experiment., CHORUS Collaboration (E. Eskut (Cukurova U.) et al.),

Nucl.Phys. B793 (2008) 326-343

10. Development of an emulsion imaging system for cosmic-ray muon radiography to explore the internal structure of a volcano, Mt. Asama, H.K.M. Tanaka, T. Nakano, S. Takahashi, J. Yoshida and K. Niwa, N Nucl.Instrum.Meth. A575:489-497, June 2007.
11. DETECTION AND ANALYSIS OF TAU NEUTRINO INTERACTIONS IN DONUT EMULSION TARGET., K. Kodama et al., Nucl.Instrum.Meth.A493:45-66, 2002
12. OBSERVATION OF TAU NEUTRINO INTERACTIONS., By DONUT Collaboration (K. Kodama et al.), Phys.Lett.B504:218-224, 2001
13. NEW RESULTS FROM A SEARCH FOR $\nu/\mu \rightarrow \nu/\tau$ AND $\nu/e \rightarrow \nu/\tau$ OSCILLATION., CHORUS Collaboration (E. Eskut et al.), Phys.Lett.B497:8-22, 2001
14. THE CHORUS EXPERIMENT TO SEARCH FOR MUON-NEUTRINO $\rightarrow$ TAU-NEUTRINO OSCILLATION., CHORUS Collaboration (E. Eskut et al.), Nucl.Instrum.Meth.A401:7-44, 1997
15. RESEARCH AND DEVELOPMENT OF SCINTILLATING FIBER TRACKER FOR MUON-NEUTRINO - TAU-NEUTRINO OSCILLATION EXPERIMENT., T. Nakano et al., IEEE Trans.Nucl.Sci.39:680-684, 1992