Michinari Sakai

Personal Data

Place and Date of Birth:	Los Angeles, USA | 16 October 1980
Address:	60 N. Nimitz Hwy. #1107, Honolulu, HI, USA
Phone:	+1-808-206-435
email:	michinar@hawaii.edu

Education

December 2015 (expected)	Ph.D. in Physics, **The University of Hawaii**, Manoa Thesis: "High Energy Neutrino Analysis in KamLAND and Application to Dark Matter Search" Advisor: Prof. John G. Learned
December 2006 - 2007	Graduate Program in Mathematics, **Sun Moon University**, South Korea Advisor: Prof. Doe-Wan Kim
Fall 2005	Double B.Sc. in Physics and Mathematics, **Sun Moon University**, South Korea Honors: Double Cum Laude Advisor: Prof. Ki-Won Kim

Work Experience

Jul 2009 - *Current* — Research Assistant

Developed directional reconstruction algorithm for high-energy neutrinos in KamLAND. First ever physics application (dark matter search) of neutrino directionality in scintillator experiments.

Lead GEANT4 simulation developer for mini Time-Cube project at University of Hawaii. Examined trade studies for various neutron capture dopants in scintillator. Contributed to neutrino/neutron directional reconstruction algorithm. Conducted background studies for long-lived isotopes produced from cosmogenic muons.

Jul 2007 - Oct 2009 — Teaching Assistant

Taught two undergraduate physics mechanics laboratory courses per semester. Received positive reviews.

Jan 2002 - Mar 2006 — Interpreter and Teacher

(Mar. 2006) Part time English lecturer for Korean undergraduate students.

(Mar. 2004 - Dec. 2005) Part time contributing reporter and translator for university magazine.

(Jul. 2004) Spontaneous trilingual interpreter for W-CARP International Education Conference.

(Mar. 2003 - Mar. 2004) Part time translator for Today's World Magazine.

Skills

Tools:	ROOT, Geant4, Pads
Languages:	C++, Python, Fortran, Perl, Mathematica, Matlab, Bash, VHDL

Scholarships and Awards

2004	Award for Outstanding Academic Acheivement, Samsung Corp.
2001, 2002, 2003, 2004	Undergraduate Achievement Scholarships, Sun Moon Univ.
2001	Ae-Guk Freshman Scholarship, Sun Moon Univ.

Languages

English, Japanese, Korean

Publications

Aug. 2011	J. Kumar, J. G. Learned, M. Sakai, S. Smith, Dark Matter Detection With Electron Neutrinos in Liquid Scintillation Detectors, Phys.Rev. D84 (2011) 036007
Mar. 2015	K. Asakura et al., Study of electron anti-neutrinos associated with gamma-ray bursts using KamLAND, arXiv:1503.02137v1
Feb. 2015	T. I. Banks et al., A compact ultra-clean system for deploying radioactive sources inside the KamLAND detector, 10.1016/j.nima.2014.09.068
Jan. 2015	C. Lane et al., A new type of Neutrino Detector for Sterile Neutrino Search at Nuclear Reactors and Nuclear Nonproliferation Applications, arXiv:1501.06935v1
May 2014	A. Gando et al., 7Be Solar Neutrino Measurement with KamLAND, arXiv:1405.6190v1
Aug. 2011	S. Abe et al., Measurement of the 8B Solar Neutrino Flux with the KamLAND Liquid Scintillator Detector, 10.1103/PhysRevC.84.035804

Posters and Talks

Aug. 2010	Talk at AAP 2010, Sendai, Japan: Mini-TimeCube: A Portable Directional Neutrino Detector
Jun. 2012	Poster at Neutrino 2012, Kyoto, Japan: Indirect Dark-Matter Detection Through KamLAND