Michinari Sakai

Personal Data

Place and Date of Birth:	Los Angeles, USA | 16 October 1980
Address:	60 N. Nimitz Hwy. #1107, Honolulu, HI, USA
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Education

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

Work Experience

Aug. 2009 - *Current* — Research Assistant

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

mini-TimeCube: Lead GEANT4 simulation developer for project. 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.

Aug. 2007 - May. 2009 — Teaching Assistant

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

Jan. 2003 - 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 campus magazine.

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

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

Skills

Software/Tools:	ROOT, Geant4, Pads
Programming Languages:	C++, Python, Fortran, Perl, Mathematica, Matlab, Bash, VHDL
Human Languages:	English, Japanese, Korean

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.

Publications

mini-TimeCube

2015 (expected)	V.A. Li et al., mini-TimeCube, RSI Invited Review

KamLAND

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
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

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