Reina Maruyama

Curriculum Vitae

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Professional Appointments

July 2016 – ***Associate Professor of Physics with Tenure***
Yale University

July 2013 – June 2016 ***Assistant Professor of Physics***
Yale University

2013 ***Associate Professor of Physics with Tenure***
University of Wisconsin-Madison

2011 – 2013 ***Assistant Professor of Physics***
University of Wisconsin-Madison

2006 – 2010 ***Assistant Scientist***, IceCube Research Center
University of Wisconsin-Madison

2003 – 2006 ***Chancellor's Postdoctoral Fellow, Postdoctoral Research Associate***
University of California & Lawrence Berkeley National Laboratory

1996 – 2003 ***Graduate Research Assistant***
Department of Physics, University of Washington, Seattle

Education

2003 Ph.D. Physics University of Washington, Seattle, WA, USA
"Optical Trapping of Ytterbium Atoms,"
Thesis Advisor: E. Norval Fortson

1996 M.S. Physics University of Washington, Seattle, WA, USA

1995 B.S. Applied Physics Columbia University, New York, NY, USA

Honors and Awards

- Yale Junior Faculty Fellowship, 2015 – 2016
- Sloan Research Fellow, 2014 – 2016
- NSF CAREER Award: 2012 – 2017
- Yale Public Voices Fellow, 2013 – 2014
- Woman Physicist of the Month, Committee on the Status of Women in Physics (CSWP) June 2013
- Chancellor's Postdoctoral Fellowship, University of California, Berkeley: 2003 – 2006

Current Research and Scientific Leadership Positions

The following are a quick summary of the research topics and leadership positions within the scientific collaborations that Maruyama is leading or involved in. For more information, please visit http://maruyama-lab.yale.edu.

- Deciphering the properties of dark matter
  - PI and Scientific co-Spokesperson for the COSINE-100 experiment (2015 – Present).
  - PI and Scientific Spokesperson for the DM-Ice experiment (2010 – Present).
  - Successfully installed the COSINE-100 dark matter experiment at the Yangyang Underground Laboratory in South Korea in 2016. Data taking to begin in Fall 2016.
  - Successfully deployed and demonstrated long-term operation of a direct detection dark matter detector 2500 m below the surface of the Antarctic ice at the South Pole. (2010 – Present)
  - DM-Ice phase-II detector in operation at Boulby Underground Laboratory in the U.K. since 2015.
  - Led R&D program and successfully demonstrated reduction of the background-inducing impurities in sodium-iodide detectors by a factor of 20.
  - Initiated and currently coordinate an international consortium of NaI experiments.
- Searching for new laws of physics through studies of neutrino properties
  - One of the founding members of the CUORE experiment in the U.S.
  - CUORE Council Co-Chair (2015 - Present).
  - Institutional representative on the CUORE Collaboration Council (2014 - Present).
  - CUORE Physics Board member (2013 – 2015).
    - Led the 2015 CUORE-0 Physical Review Letters publication as a member of the CUORE Physics Board. Title: "Search for Neutrinoless Double-Beta Decay of ^{130}Te with CUORE-0" among other publications.

- Muon tagger construction for CUORE.
- Developed a precision doping technique for neutron transmutation-doped thermistors for the CUORE experiment.
- IceCube Supernova Working Group convenor (2009 - 2011). A sensitivity study of the mass hierarchy and collective oscillation of neutrinos from supernovae with the IceCube experiment.
- IceCube Digital Optical Module (DOM) testing lead (2008 - 2011) to coordinate the final acceptance test prior to shipment to the South Pole.
- A member of the IceCube construction and DOM deployment team at the South Pole (2009 - 2011).

Professional Activities

Reviews & Panels	DOE Office of High Energy Physics
	DOE Nuclear Physics
	DOE SBIR/STTR
	NSF Particle Astrophysics
	Canada CFI
Committee Member/Organizer	Snowmass 2013 Contributor to the Cosmic Frontier Working Group for a long-term planning exercise for the American Physical Society's Division of Particles and Fields
Journal Referee	European Physical Journal C (EPJC)
	Journal of Instrumentation (JINST)
	Journal of Cosmology and Astroparticle Physics (JCAP)
	Astroparticle Physics
Outreach Activities	Science on Saturdays at Yale and other public talks
	IceCube Outreach Programs
	2008/09 QuarkNet
	Education Outreach, Lawrence Berkeley National Laboratory

Conference Organization

7. International Advisory Committee Member, Identification of Dark Matter (IDM 2016), Sheffield, UK, July 18 – 22, 2016.

6. Convener, 2015 Fall Meeting of the APS Division of Nuclear Physics, Santa Fe, New Mexico, Oct. 28 – 31, 2015.

5. Workshop on Sodium-Iodide-Based Dark Matter Detectors, Low Radioactivity Techniques 2015 (LRT 2015), Seattle, Washington, March 17, 2015.

4. Organizing Committee, 12th Conference on the Intersections of Particle and Nuclear Physics (CIPANP 2015), Vail, Colorado, May 19 – 24, 2015.

3. Convener, 37th International Conference on High Energy Physics (ICHEP 2014), Valencia, Spain, Jul. 2 – 9, 2014.

2. International Advisory Committee Member, Identification of Dark Matter (IDM 2012), Chicago, Illinois, July 23 – 27, 2012.

1. Co-organizer, Neutrinos and Dark Matter (NDM09), Madison, Wisconsin, August 31 – September 4, 2009.

University and Department Service

2016 – 2017 *University Wide, Yale University*

- Senator, Faculty of Arts and Sciences Senate (Elected)
  - Executive Committee, member (elected)
  - Committee on Faculty Advancement
  - Committee on Diversity and Inclusivity
- Advisory Committee for Diversity and Faculty Development in the Faculty of Arts and Sciences

Physics Department, Yale University

- Committee on Climate and Diversity

2015 – 2016 *University Wide, Yale University*

- Senator, Faculty of Arts and Sciences Senate (Elected)

Physics Department, Yale University

- COUPE (Committee on Undergraduate Physics Education)
- Committee on Climate and Diversity

2014 – 2015 *Physics Department, Yale University*

- COUPE (Committee on Undergraduate Physics Education)
- Committee on Climate and Diversity

2012 – 2013 *Physics Department, University of Wisconsin-Madison*

- Admissions & Fellowships Committee
- Faculty Search Committee for Astrophysics
- Alumni Relations Committee
- Outreach & Museum Committee

University-Wide, University of Wisconsin-Madison

- Faculty Senate Representative

2011 – 2012 *Physics Department, University of Wisconsin-Madison*

- Alumni Relations Committee
- Outreach & Museum Committee

Teaching

Spring 2017 *PHYS 382L: Advanced Labs, Yale University*

Fall 2016 *PHYS 524: Introduction to Nuclear Physics , Yale University*

Spring 2015 *PHYS 181-02: University Physics , Yale University*

PHYS 990-10: Special Investigations, Yale University

Fall 2014 *PHYS 205L-01 & 206L-01 Modern Physical Measurement, Yale University*

Summer 2014 *National Academies Summer Institute on Undergraduate Education at Yale*

- Participated in a workshop to develop and bring in the latest innovation in scientific teaching into classroom.

Spring 2014 *PHYS 181-01: University Physics, Yale University*

PHYS 990-15: Special Investigations, Yale University

Fall 2013 *SCIE 198: Perspectives on Science and Engineering, Yale University*

Spring 2013 *Advanced Laboratory (Physics 407), University of Wisconsin-Madison*

Spring 2012 *Advanced Laboratory (Physics 407), University of Wisconsin-Madison*

Summer 2011 *Workshop for New Physics and Astronomy Faculty by AAPT, AAS, and APS*

Spring 2011 *General Physics II (Physics 407), University of Wisconsin-Madison*

Advising and Mentoring

Research Scientists

1. Ke Han, Oct. 2014 – Feb. 2016
   Current Employment: Associate Professor, Department of Physics, Shanghai Jiao Tong University

Postdocs

3. Jay Hyun Jo, Dec. 2015 – Present
2. Kyungeun Lim, Mar. 2013 – Present
1. Matthew Kauer, 2012 – 2015
   Current Employment: Research Scientist, University of Wisconsin-Madison

Graduate Students: PhD

*4 PhDs awarded to date. * indicates expected graduation date*

9. William Thompson, PhD expected: 2020*, Yale University
   Thesis: DM-Ice

8. Estella Barbosa de Souza, PhD expected: 2019*, Yale University
   Thesis: DM-Ice

7. Christopher Davis, PhD expected: 2018*, Yale University
   Thesis: First Measurement of Two-Neutrino Double Beta Decay with CUORE

6. Jeremy Cushman, PhD expected: 2017*, Yale University (co-advisor)
   Thesis: First Measurement of Neutrinoless Double Beta Decay with CUORE

5. Zachary Pierpoint, PhD expected: Dec. 2016*, University of Wisconsin-Madison
   Thesis: Search for Annual Modulation Signature from Dark Matter with DM-Ice17

4. Antonia Hubbard, PhD, Jun. 2015, University of Wisconsin-Madison
   Thesis: Muon-Induced Backgrounds in the DM-Ice17 NaI(Tl) Dark Matter Detector
   NSF Graduate Research Fellowship
   Current employment: Postdoc, Northwestern University

3. Walter Pettus, PhD, Jun. 2015, University of Wisconsin-Madison (co-advisor)
   Thesis: Cosmogenic Activation in NaI Detectors for Dark Matter Searches.
   DOE NNSA SSGF Fellowship
   Current employment: Postdoc, Yale

2. Benedikt Riedel, PhD, Oct. 2014, University of Wisconsin-Madison
   Thesis: Modeling and Understanding Supernova Signals in the IceCube Neutrino Observatory
   Current employment: Postdoc, University of Alberta, Canada

1. Bethany Reilly, PhD, Aug. 2014, University of Wisconsin-Madison
   Thesis: Background Simulation and Verification for DM-Ice
   Current employment: Associate Lecturer of Physics and Astronomy, UW-Fox Valley

Graduate Students: Masters

1. Lauren Wielgus, Jul. 2012 – Sep. 2013, University of Wisconsin-Madison
   Detector Calibration Control System for CUORE.

Undergraduate Students

**expected degree award date*

11. Byron Daniel, STARS-I and Summer Research Fellow, Jun. 2016 – May 2019*
    Project: Simulation of the CUORE Detector Calibration System

10. Suryabrata Dutta, Tetelman Fellow, 2016, Jun. 2016 – May 2018*
    Projects: CUORE onsite detector installation, calibration system

9. Lauren Chambers, Edward A. Bouchet-Robertson Fellow, Sep. 2015 – May 2017*
    Project: Characterization of Sodium-Iodide Detectors

8. Ivy Wanta, Jan. 2015 – May 2017*
    Project: Development of a muon veto system for improved double beta decay measurements in ^{130}Te

7. Nikita Dutta, STARS II Fellow, Jan. 2015 - May 2016*
    Senior Thesis: *Development of muon veto system for improved double beta decay measurements in ^{130}Te*

6. Field Rogers, Sep. 2014 – May 2015 (Post Bach through May 2016)
    Senior Thesis: *Pulse-shape discrimination in NaI detectors*

5. Tomas Albergo, Jan. 2015 – May 2015
    Project: Optimization of the CUORE Calibration System with Monte Carlo Simulations

4. Chris Hilgenberg, Sep. 2011 – 2013
    Project: Effect of temperature on NaI pulse shape
    Recipient of the 2012-2013 Wisconsin Space Grant Consortium Undergraduate Research Award
    Physics PhD program at Colorado State from Fall 2013

3. Aleks Cianciara, Sep. 2011 – 2013
    Project: DM-Ice17 detector stability

2. Minghui (Maggie) Wu, Jan. – Jun. 2013
    Project: Background estimates for DM-Ice

1. Benjamin Broerman (co-advisor), Jun. 2010 – 2012
    Project: Modeling of the thermal mass and gradient profile of the DM-Ice prototype, PMT characterization, waveform characterization, detector stability
    Recipient of the 2011 UW Hilldale Research Fellowship.
    Physics PhD program at Queens University, Canada from Fall 2012

Additional Teaching, Advising and Mentoring at Yale

- Graduate Student Special Investigations & Short Term Projects
  - Estella Barbosa de Souza, Fall 2014 – Spring 2015
  - Brooke Russell, Fall 2013 – Spring 2014
- Thesis & Prospectus Committees
  - Tomomi Sunayama, Summer 2016 (Defense)

  - Filip Kos, Spring 2016 (Defense)
  - Elizabeth Boulton, Fall 2015 (Prospectus)
  - Jefferey Ammon, Spring 2015 (Defense)
  - Emma Ideal, Spring 2015 (Defense)
  - Peiyuan Mao, Prospectus: Fall 2014 (Prospectus)
  - Emine Altuntas, Prospectus: Fall 2014 (Prospectus)
- Freshman Advising
  - 2016/17: Sofia Checa, Tristan Furnary, Jonathan Lomogda, Nick Zhang
  - 2014/15: Veena Advani, Jay Majumdar, Katherine Tan
- Sophomore Advising
  - 2016/17: Byron Daniel
- Postdoc Mentoring through Women In Science At Yale (WISAY) 2014 – Present
- Faculty mentor for Women in Physics at Yale

Plenary and Invited Talks at Conferences and Workshops

24. "Status and prospect for NaI dark matter experiments" 38th International Conference on High Energy Physics (ICHEP 2016), Chicago, IL. Aug. 3 – 10, 2016 (IBS Satellite Session).
23. "DM-Ice," UCLA Dark Matter 2016, Sources and Detection of Dark Matter and Dark Energy in the Universe, UCLA, Los Angeles, CA. Feb. 17 – 19, 2016 (Plenary).
22. "First Data from DM-Ice17, Prospects for DM-Ice," Mini-Workshop on direct search of dark matter, Institute for Basic Science, Daejeon, Korea. Jul. 7, 2015.
21. "Results from the search for neutrinoless double beta decay of ^{130}Te with CUORE-0, Status of CUORE," International Workshop on Baryon & Lepton Number Violation (BLV 2015), University of Massachusetts Amherst, Amherst, MA, Apr. 26 - 30, 2015.
20. "Results from CUORE-0, Status of CUORE," International Workshop on Double Beta Decay and Underground Science (DBD 2014) and the 4th Joint Meeting of the APS Division of Nuclear Physics and the Physical Society of Japan, Hawaii Island, USA, Oct. 5 - 7, 2014.
19. "Dark Matter Searches at the South Pole," Neutrinos Beyond IceCube, Arlington, VA, USA, Apr. 24, 2014 (Plenary).
18. "First Data from DM-Ice," Lake Louise Winter Institute, Lake Louise, Canada, Feb. 16 - 22, 2014 (Plenary).
17. "DM-Ice," Carolina International Symposium on Neutrino Physics 2013, Columbia, SC, May 20 - May 22, 2013 (Plenary).

16. “DM-Ice,” Aspen Winter Workshop 2013 - Closing in on Dark Matter, Aspen Center for Physics, Aspen, CO, Jan. 28 - Feb. 3, 2013 (Plenary).
15. “DM-Ice,” Dark Matter Silver Jubilee Symposium, PNNL, Richland, Washington, June 19-21, 2012 (Plenary).
14. “DM-Ice: DM Search with NaI,” NDM12, Neutrinos and Dark Matter in Nuclear Physics 2012, Nara, Japan, June 11-15, 2012 (Plenary).
13. “Dark matter signatures and limits,” CIPANP 2012, 11th Conference on the Intersections of Particle and Nuclear Physics, St. Petersburg, Florida, May 28-June 3, 2012 (Plenary).
12. “DM-Ice: a Search for Dark Matter at the South Pole,” APS April Meeting, Atlanta, Georgia, March 31-April 3, 2012.
11. “On Testing DAMA,” Unraveling Dark Matter, a workshop at Perimeter Institute, Waterloo, Canada, September 22-24, 2011 (Plenary).
10. “DM-Ice,” Dark Matter Underground and in the Heavens, DMUH11, CERN, Switzerland, July 18-29, 2011 (Plenary).
9. “DM-Ice A Direct Dark Matter Search at the South Pole,” Antarctic Science Symposium 2011, Madison, Wisconsin, April 27-28, 2011 (Plenary).
8. “DM-Ice: A Search for Dark Matter in the Antarctic Ice,” Astrophysics from the South Pole: Status and Future Prospects, Washington, D.C., April 4-5, 2011 (Plenary).
7. “DM-Ice: A Search for Dark Matter in the Antarctic Ice,” Indirect and Direct Detection of Dark Matter, Aspen Center for Physics, Aspen, Colorado, February 6-12, 2011 (Plenary).
6. “Supernova Neutrino Detection with IceCube,” UCLA/UCSD Supernova Physics and DUSEL Workshop, UCLA, Los Angeles, CA, September 16-17, 2009 (Plenary).
5. “Neutrinoless Double Beta Decay,” Gordon Research Conference in Nuclear Physics, Bryant University, Smithfield, Rhode Island, July 12-17, 2009 (Plenary).
4. “Probing the neutrino particle nature and mass scale with CUORICINO and CUORE,” Workshop on Next generation Nucleon decay and Neutrino detectors 2006 (NNN06), Seattle, Washington, September 21-23, 2006 (Plenary).
3. “Cryogenic Double Beta Decay Experiments: CUORE and CUORICINO,” Neutrino 2006, Santa Fe, New Mexico, June 13-19, 2006 (Plenary).
2. “Status of CUORICINO, Prospects for CUORE,” Workshop on Exploring The Physics Frontier At The Deep Underground Laboratories, Institute for Nuclear Theory, University of Washington, Seattle, Washington, June 23-24, 2005.
1. “Prospects for an Atomic Clock Using the $^1S_0$-$^3P_0$ Line in Atomic Yb,” Second Workshop on Cold Alkaline-Earth Atoms, Copenhagen, Denmark, 2003.

Invited Seminars and Colloquia

28. Physics Colloquium, Williams College, Apr. 8, 2016.
27. AstroParticle Physics Seminar, Sungkyunkwan University, South Korea, Apr. 6, 2016.
26. Physics Colloquium, University of Washington, Seattle, WA, Feb. 29, 2016.
25. Physics Club (Colloquium), Yale University, Dec. 14, 2015.
24. Physics Colloquium, Rensselaer Polytechnic Institute, Nov. 4, 2015.
23. Joint Stony Brook/Brookhaven Cosmology Seminar, Sep. 23, 2015.
22. Nuclear Particle Astrophysics Seminar, Wright Lab, Yale University, New Haven, CT, Apr. 16, 2015.
21. Physics Department/INFN Particle Physics Seminar, University of Rome "La Sapienza", Italy, May 12, 2014.
20. MIT Laboratory for Nuclear Science Lunch Time Seminar, Mar. 18, 2014.
19. Colloquium, Department of Physics, Drexel University, Dec. 5, 2013.
18. Weak Interactions Discussion Group at Yale, Yale University, Sep. 23, 2013.
17. Astroparticle Seminar, McGill University, Montreal, Canada, November 14, 2012.
16. High Energy Physics Seminar, Yale University, New Haven, Connecticut, September 5, 2012.
15. SLAC Astrophysics Colloquium, Kavli Institute for Particle Astrophysics and Cosmology, Stanford University, California, May 24, 2012.
14. KIPAC Friday Noon Seminar, University of Chicago, Chicago, Illinois, May 4, 2012.
13. Physics Department Colloquium, University of Arizona, Tucson, Arizona, April 13, 2012.
12. HEP/AstroPhysics Seminar, Physics Department, University of Michigan, Ann Arbor, Michigan, September 19, 2011.
11. Department of Physics Special Seminar, University of Wisconsin, Madison, September 30, 2010.
10. Special Medium Energy Seminar, University of Illinois at Urbana-Champaign, July 9, 2010.
9. Argonne National Laboratory High Energy Physics Division Seminar, March 17, 2010.
8. Sunday Evening Talk, Amundson-Scott South Pole Station, South Pole, Antarctica, December 5, 2010.

7. Harvard University Laboratory for Particle Physics and Cosmology Seminar Series, February 24, 2009.
6. MIT Laboratory for Nuclear Science Lunch Time Seminar, February 24, 2009.
5. Joint Astrophysics/Nuclear Physics Seminar, Ohio University, April 10, 2007.
4. Nuclear Physics Seminar, University of Maryland, March 30, 2007.
3. Argonne National Laboratory Physics Division Seminar, December 12, 2006.
2. Cosmology and Astrophysics Seminars, University of Wisconsin, Madison, Wisconsin, April 3, 2006.
1. Colloquium, Physics Department, University of North Carolina, Chapel Hill, North Carolina, March 9, 2006.

Contributed Talks & Posters

18. "Results from the DM-Ice17 Dark Matter Experiment," Z. Pierpoint for DM-Ice. Division of Nuclear Physics of the American Physical Society, Oct. 28 - 31, 2015, Santa Fe, NM.
17. "Results from the DM-Ice17 Dark Matter Experiment at the South Pole," TAUP 2015, Torino, Italy, September 7 - 11, 2015.
16. "Status of CUORE," Aspen Winter Workshop 2013 - New Directions in Neutrino Physics, Aspen Center for Physics, Aspen, CO, Feb. 3 - 9, 2013 (Poster).
15. "DM-Ice," IAU Beijing IAU XXVIII, International Astronomical Union, Astrophysics from Antarctica, Beijing, China, August 20-24, 2012.
14. "DM-Ice," SCAR 2012, Scientific Committee on Antarctic Research Open Science Conference, Portland, Oregon, July 16-19, 2012.
13. "DM-Ice," UCLA DM 2012, Marina del Rey Marriott, Los Angeles, California, February 22 - 24, 2012.
12. "DM-Ice: A Search for Dark Matter at the South Pole," TAUP 2011, Munich, Germany, September 5-9, 2011.
11. "DM-Ice: A Search for Dark Matter at the South Pole," Pheno Symposium, Madison, WI, May 9-11, 2011.
10. "Studying neutrinos from nearby supernovae with IceCube," Poster for Neutrino 2010, Athens, Greece, June 14-19, 2010.
9. "Production of Neutron Transmutation Doped Germanium Thermistors for CUORE," Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Oakland, California, October 23-26, 2008.

8. "Updates on β-ν correlation measurement of optically trapped ^{21}Na atoms" Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Maui, Hawaii, September 18-22, 2005.

7. "Status of CUORICINO, Prospects for CUORE" Frontiers in Contemporary Physics III, Vanderbilt University Nashville, Tennessee, May 23-28, 2005.

6. "The β-ν Correlation of Optically Trapped ^{21}Na Atoms" Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Chicago, Illinois, 2004.

5. "Beta-Neutrino Correlation Measurement with Sodium-21 in a Magneto-Optical Trap Using Shake-off Electrons" Fall Meeting of the Division of Nuclear Physics of the American Physical Society, Tucson, Arizona, 2003.

4. "Sisyphus Cooling in Ytterbium Intercombination MOT" Division of Atomic, Molecular and Optical Physics of the American Physical Society, Boulder, Colorado, 2003.

3. "Investigation of an Ytterbium MOT Using an Intercombination Transition" Division of Atomic, Molecular and Optical Physics of the American Physical Society, Williamsburg, Virginia, 2002.

2. "Trapping Ytterbium Atoms for an EDM Experiment" Centennial Meeting of the American Physical Society, Atlanta, Georgia, 1999.

1. "Trapping Ytterbium Atoms for an EDM Experiment" Division of Atomic, Molecular and Optical Physics of the American Physical Society, Santa Fe, New Mexico, 1998.

Public Talks, TV & Radio Appearances

- BBC World Service, Science in Action, Aug. 2016.
- "Physics Underground," Invited talk at Conference for Undergraduate Women in Physics, University of California San Diego, Jan. 15 - 17, 2016.
- "Neutrinos and Dark Matter," Yale Physics Olympics, Yale University, October 17, 2015.
- "Neutrinos, Dark Matter, and the South Pole," Science on Saturdays, Yale University, March 1, 2014.
- "Finding Dark Matter at the South Pole," A Faculty Coterie, University of Wisconsin, Sep. 18, 2012.
- "Living in Antarctica," University Place Presents - Ep. 738, Wisconsin Public Television, June 26, 2012.
- "Chasing Neutrinos at the South Pole," The Why Files, whyfiles.org, January 26, 2012.

Publications

Data from Web of Science: 121 items, h-index: 35, Sum of times cited: 4115
Complete list at http://www.researcherid.com/rid/A-1064-2013

Journal Articles: Significant Contributions

The following are articles led by or with significant contributions by Maruyama and her students and postdocs, in reverse chronological order. The author lists are typically in alphabetical order.

20. "The Detector Calibration System for the CUORE cryogenic bolometer array"
J. S. Cushman, A. Dally, C. J. Davis, L. Ejzak, D. Lenz, K. E. Lim, K. M. Heeger, R. H. Maruyama, A. Nucciotti, S. Sangiorgio, and T. Wise.
arXiv:1608.01607

    Contributions: The Maruyama group took an active role in the construction.

19. "CUORE-0 detector: design, construction and operation"
C. Alduino *et al.* [CUORE Collaboration].
arXiv:1604.05465
JINST **11**, no. 07, P07009 (2016)

    Contributions: The Maruyama group took an active role in the construction of the experiment.

18. "First Search for a Dark Matter Annual Modulation Signal with NaI(Tl) in the Southern Hemisphere by DM-Ice17"
E. Barbosa de Souza *et al.* [DM-Ice Collaboration].
arXiv:1602.05939
Contributions: The Maruyama group was responsible for the entire experiment and publication, from design and construction to data analysis and publication.

17. "Analysis techniques for the evaluation of the neutrinoless double-β decay lifetime in ^{130}Te with the CUORE-0 detector"
C. Alduino *et al.* [CUORE Collaboration].
arXiv:1601.01334 [nucl-ex]
DOI:10.1103/PhysRevC.93.045503
Phys. Rev. C **93**, no. 4, 045503 (2016)

    Contributions: Maruyama led the analysis team and publication. The Maruyama group took an active role in construction of the experiment, led calibration and data processing, and performed the final half-life calculation.

16. "Measurement of Muon Annual Modulation and Muon-Induced Phosphorescence in NaI(Tl) Crystals with DM-Ice17"
J. Cherwinka *et al.* [DM-Ice Collaboration].
arXiv:1509.02486
DOI:10.1103/PhysRevD.93.042001
Phys. Rev. D **93**, no. 4, 042001 (2016)

Contributions: The Maruyama group was responsible for the entire experiment and publication, from design and construction to data analysis and publication.

15. "Search for Neutrinoless Double-Beta Decay of ^{130}Te with CUORE-0"
K. Alfonso *et al.* [CUORE Collaboration].
arXiv:1504.02454 [nucl-ex]; 10.1103/PhysRevLett.115.102502
Phys. Rev. Lett. **115**, no. 10, 102502 (2015)

Contributions: Maruyama led the analysis team and publication. The Maruyama group took an active role in construction of the experiment, led calibration and data processing, and performed the final half-life calculation.

14. "Searching for neutrinoless double-beta decay of ^{130}Te with CUORE"
D. R. Artusa *et al.* [CUORE Collaboration].
arXiv:1402.6072 [physics.ins-det]; 10.1155/2015/879871
Adv. High Energy Phys. **2015**, 879871 (2015)

Contributions: Maruyama led the analysis team and publication. Han, a research scientist in Maruyama's group co-authored the paper. The Maruyama group took an active role in construction of the experiment, led calibration and data processing, and the final half-life calculation.

13. "Initial performance of the CUORE-0 experiment"
C. P. Aguirre *et al.* [CUORE Collaboration].
arXiv:1402.0922 [physics.ins-det]; 10.1140/epjc/s10052-014-2956-6
Eur. Phys. J. C **74**, 2956 (2014)

Contributions: Maruyama led the analysis team and publication. Lim, a postdoc in Maruyama's group co-authored the paper. The Maruyama group took an active role in construction of the experiment, led calibration and data processing, and the final half-life calculation.

12. "First data from DM-Ice17"
J. Cherwinka *et al.* [DM-Ice Collaboration].
arXiv:1401.4804 [astro-ph.IM]; 10.1103/PhysRevD.90.092005
Phys. Rev. D **90**, no. 9, 092005 (2014)

Contributions: The Maruyama group was responsible for the entire experiment and publication, from design and construction to data analysis and publication.

11. "Evidence for High-Energy Extraterrestrial Neutrinos at the IceCube Detector"
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1311.5238 [astro-ph.HE]; 10.1126/science.1242856
Science **342**, no. 6161, 1242856 (2013)

Contributions: Maruyama worked closely with the postdocs and students who led the analysis on optimizing the data presentation for publication. Maruyama led quality assurance testing of the primary sensors, digital optical modules, and participated in the IceCube detector installation at the South Pole. Maruyama's postdoc, Kauer, was responsible for coordinating the operation of the detector.

10. "Search for 14.4 keV solar axions from M1 transition of Fe-57 with CUORE crystals"
F. Alessandria *et al.* [CUORE Collaboration].
arXiv:1209.2800 [hep-ex]; 10.1088/1475-7516/2013/05/007
JCAP **1305**, 007 (2013)

Contributions: Maruyama worked on the analysis with a student and faculty from another group in the collaboration. The Maruyama group took an active role in the construction of the experiment.

9. "A Search for the Dark Matter Annual Modulation in South Pole Ice"
J. Cherwinka *et al.* [DM-Ice Collaboration].
arXiv:1106.1156 [astro-ph.HE]; 10.1016/j.astropartphys.2012.03.003
Astropart. Phys. **35**, 749 (2012)

Contributions: The Maruyama group was responsible for the entire experiment and publication, from design and construction to data analysis and publication.

8. "An absence of neutrinos associated with cosmic-ray acceleration in γ-ray bursts"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1204.4219 [astro-ph.HE];
Nature **484**, 351 (2012)

Contributions: Maruyama worked with the student, Whitehorn, on optimizing the figures in the paper. Maruyama also supervised him during detector construction. Maruyama led quality assurance testing of the primary sensors, digital optical modules, and participated in the IceCube detector installation at the South Pole

7. "CUORE crystal validation runs: results on radioactive contamination and extrapolation to CUORE background"
F. Alessandria, E. Andreotti, R. Ardito, C. Arnaboldi, F. T. Avignone, III, M. Balata, I. Bandac and T. I. Banks *et al.* [CUORE Collaboration].
arXiv:1108.4757 [nucl-ex]; 10.1016/j.astropartphys.2012.02.008
Astropart. Phys. **35**, 839 (2012)

Contributions: Maruyama carried out the data analysis together with students and postdocs in the collaboration. The Maruyama group took an active role in the construction of the experiment.

6. "IceCube Sensitivity for Low-Energy Neutrinos from Nearby Supernovae"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1108.0171 [astro-ph.HE];
Astron. Astrophys. **535**, A109 (2011)

Contributions: Maruyama led the simulation, analysis, and writing of the paper as the Supernova Working Group convenor. Maruyama led quality assurance testing of the primary sensors, digital optical modules, during the construction of the experiment. Maruyama's postdoc was responsible for coordinating the operation of the detector.

5. "^{130}Te Neutrinoless Double-Beta Decay with CUORICINO"

E. Andreotti, C. Arnaboldi, F. T. Avignone, M. Balata, I. Bandac, M. Barucci, J. W. Beeman and F. Bellini *et al.* [CUORICINO Collaboration].
arXiv:1012.3266 [nucl-ex];
Astropart. Phys. **34**, 822 (2011)

Contributions: The success of this experiment serves as the basis for the CUORE experiment. Maruyama contributed to the characterization of the sensors and operation of the experiment. Maruyama participated in the analysis, and was an internal reviewer of the paper.

4. "Results from a search for the 0 neutrino beta beta-decay of Te-130"
C. Arnaboldi *et al.* [CUORICINO Collaboration].
arXiv:0802.3439 [hep-ex]; 10.1103/PhysRevC.78.035502
Phys. Rev. C **78**, 035502 (2008)

Contributions: The success of this experiment serves as the basis for the CUORE experiment. Maruyama contributed to the characterization of the sensors and operation of the experiment. Maruyama participated in the analysis, and was an internal reviewer of the paper.

3. "Measurement of the beta-nu correlation of Na-21 using shakeoff electrons"
P. A. Vetter, J. R. Abo-Shaeer, S. J. Freedman and R. Maruyama.
arXiv:0805.1212 [nucl-ex]; 10.1103/PhysRevC.77.035502
Phys. Rev. C **77**, 035502 (2008)

Contributions: Maruyama, Vetter, and Abo-Shaeer ran the experiment and analyzed the data. Maruyama carried out the Monte Carlo simulation for the experiment.

2. "Design of the low energy astrophysics research facility CLAIRE"
D.S. Todd, D. Leitner, M. Leitner, R. Maruyama, P.A. Vetter, and K.N. Xu
Nuc. Inst. Methods B, 261 (2007) 544

Contributions: Maruyama investigated and synthesized the science motivation for the low energy accelerator. This paper was the basis of the Laboratory Directed Research and Development funding awarded to develop the idea into a full scale experiment.

1. "Investigation of sub-Doppler cooling in an ytterbium magneto-optical trap"
R. Maruyama, R. H. Wynar, M. V. Romalis, A. Andalkar, M. D. Swallows, C. E. Pearson, and E. N. Fortson,
Phys. Rev. A **68**, 011403/1-4 (2003).

Contributions: This paper is based on Maruyama's thesis project. Maruyama carried out the entire experiment, from building the and running apparatus, taking and analyzing the data, to writing the paper.

Journal Articles: Team/Collaboration Wide

The following are articles for which Maruyama and her group contributed but were led by others, in reverse chronological order. The author lists are typically in alphabetical order.

119. “Observation and Characterization of a Cosmic Muon Neutrino Flux from the Northern Hemisphere using six years of IceCube data”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1607.08006 [astro-ph.HE]

118. “Constraints on ultra-high-energy cosmic ray sources from a search for neutrinos above 10 PeV with IceCube”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1607.05886 [astro-ph.HE]

117. “Search for Sources of High Energy Neutrons with Four Years of Data from the IceTop Detector”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1607.05614 [astro-ph.HE]

116. “PINGU: A Vision for Neutrino and Particle Physics at the South Pole”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1607.02671 [hep-ex]

115. “All-flavour Search for Neutrinos from Dark Matter Annihilations in the Milky Way with IceCube/DeepCore”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1606.00209 [astro-ph.HE]

114. “Neutrino oscillation studies with IceCube-DeepCore”
M. G. Aartsen *et al.*.
DOI:10.1016/j.nuclphysb.2016.03.028
Nucl. Phys. B **908**, 161 (2016).

113. “Searches for Sterile Neutrinos with the IceCube Detector”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1605.01990 [hep-ex]
DOI:10.1103/PhysRevLett.117.071801
Phys. Rev. Lett. **117**, no. 7, 071801 (2016)

112. “Lowering IceCube’s Energy Threshold for Point Source Searches in the Southern Sky”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1605.00163 [astro-ph.HE]
DOI:10.3847/2041-8205/824/2/L28
Astrophys. J. **824**, no. 2, L28 (2016)

111. “Anisotropy in Cosmic-ray Arrival Directions in the Southern Hemisphere Based on six Years of Data From the Icecube Detector”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1603.01227 [astro-ph.HE]
DOI:10.3847/0004-637X/826/2/220
Astrophys. J. **826**, no. 2, 220 (2016)

110. “High-energy Neutrino follow-up search of Gravitational Wave Event GW150914 with ANTARES and IceCube”
S. Adrian-Martinez *et al.* [ANTARES and IceCube and LIGO Scientific and Virgo Collaborations].
arXiv:1602.05411 [astro-ph.HE]
DOI:10.1103/PhysRevD.93.122010
Phys. Rev. D **93**, no. 12, 122010 (2016)

109. “An All-Sky Search for Three Flavors of Neutrinos from Gamma-Ray Bursts with the IceCube Neutrino Observatory”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1601.06484 [astro-ph.HE]
DOI:10.3847/0004-637X/824/2/115
Astrophys. J. **824**, no. 2, 115 (2016)

108. “Improved limits on dark matter annihilation in the Sun with the 79-string IceCube detector and implications for supersymmetry”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1601.00653 [hep-ph]
DOI:10.1088/1475-7516/2016/04/022
JCAP **1604**, no. 04, 022 (2016)

107. “Search for correlations between the arrival directions of IceCube neutrino events and ultrahigh-energy cosmic rays detected by the Pierre Auger Observatory and the Telescope Array”
M. G. Aartsen *et al.* [IceCube and Pierre Auger and Telescope Array Collaborations].
arXiv:1511.09408 [astro-ph.HE]
DOI:10.1088/1475-7516/2016/01/037
JCAP **1601**, no. 01, 037 (2016)
FERMILAB-PUB-15-520-AD-AE-CD-TD

106. “First combined search for neutrino point-sources in the Southern Hemisphere with the ANTARES and IceCube neutrino telescopes”
S. Adrian-Martinez *et al.* [ANTARES and IceCube Collaborations].
arXiv:1511.02149 [hep-ex]
DOI:10.3847/0004-637X/823/1/65
Astrophys. J. **823**, no. 1, 65 (2016)

105. “Searches for Relativistic Magnetic Monopoles in IceCube”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1511.01350 [astro-ph.HE]
DOI:10.1140/epjc/s10052-016-3953-8
Eur. Phys. J. C **76**, no. 3, 133 (2016)

104. “Search for Astrophysical Tau Neutrinos in Three Years of IceCube Data”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1509.06212 [astro-ph.HE]

DOI:10.1103/PhysRevD.93.022001
Phys. Rev. D **93**, no. 2, 022001 (2016)

103. "Search for Transient Astrophysical Neutrino Emission with IceCube-DeepCore"
M. G. Aartsen *et al.*.
arXiv:1509.05029 [astro-ph.HE]
DOI:10.3847/0004-637X/816/2/75
Astrophys. J. **816**, no. 2, 75 (2016)

102. "Evidence for Astrophysical Muon Neutrinos from the Northern Sky with IceCube"
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1507.04005 [astro-ph.HE]
10.1103/PhysRevLett.115.081102
Phys. Rev. Lett. **115**, 081102 (2015)

101. "A combined maximum-likelihood analysis of the high-energy astrophysical neutrino flux measured with IceCube"
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1507.03991 [astro-ph.HE]
10.1088/0004-637X/809/1/98
Astrophys. J. **809**, no. 1, 98 (2015)

100. "Characterization of the Atmospheric Muon Flux in IceCube"
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1506.07981 [astro-ph.HE]
DOI:10.1016/j.astropartphys.2016.01.006
Astropart. Phys. **78**, 1 (2016)

99. "Detection of a Type IIn Supernova in Optical Follow-up Observations of IceCube Neutrino Events"
M. G. Aartsen *et al.* [IceCube and PTF and Swift and Pan-STARRS1 Science Consortium Collaborations].
arXiv:1506.03115 [astro-ph.HE]
10.1088/0004-637X/811/1/52
Astrophys. J. **811**, no. 1, 52 (2015)

98. "Search for Dark Matter Annihilation in the Galactic Center with IceCube-79"
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1505.07259 [astro-ph.HE]
10.1140/epjc/s10052-015-3713-1
Eur. Phys. J. C **75**, no. 10, 492 (2015)

97. "Measurement of the Atmospheric ν_e Spectrum with IceCube"
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1504.03753 [astro-ph.HE]
10.1103/PhysRevD.91.122004
Phys. Rev. D **91**, no. 12, 122004 (2015)

96. “R&D towards CUPID (CUORE Upgrade with Particle IDentification)”
G. Wang *et al.* [CUPID Collaboration].
arXiv:1504.03612 [physics.ins-det]

95. “CUPID: CUORE (Cryogenic Underground Observatory for Rare Events) Upgrade with Particle IDentification”
G. Wang *et al.* [CUPID Collaboration].
arXiv:1504.03599 [physics.ins-det]

94. “Searches for Time Dependent Neutrino Sources with IceCube Data from 2008 to 2012”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1503.00598 [astro-ph.HE]
Astrophys. J. **807**, no. 1, 46 (2015)

93. “Flavor Ratio of Astrophysical Neutrinos above 35 TeV in IceCube”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1502.03376 [astro-ph.HE]
Phys. Rev. Lett. **114**, no. 17, 171102 (2015)

92. “Search for Prompt Neutrino Emission from Gamma-Ray Bursts with IceCube”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1412.6510 [astro-ph.HE]
Astrophys. J. **805**, no. 1, L5 (2015)

91. “IceCube-Gen2: A Vision for the Future of Neutrino Astronomy in Antarctica”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1412.5106 [astro-ph.HE]

90. “Determining neutrino oscillation parameters from atmospheric muon neutrino disappearance with three years of IceCube DeepCore data”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1410.7227 [hep-ex]
10.1103/PhysRevD.91.072004
Phys. Rev. D **91**, no. 7, 072004 (2015)

89. “Atmospheric and Astrophysical Neutrinos above 1 TeV Interacting in IceCube”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1410.1749 [astro-ph.HE]
10.1103/PhysRevD.91.022001
Phys. Rev. D **91**, no. 2, 022001 (2015)

88. “Development of a General Analysis and Unfolding Scheme and its Application to Measure the Energy Spectrum of Atmospheric Neutrinos with IceCube”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1409.4535 [astro-ph.HE]
10.1140/epjc/s10052-015-3330-z
Eur. Phys. J. C **75**, no. 3, 116 (2015)

87. “Searches for small-scale anisotropies from neutrino point sources with three years of IceCube data”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1408.0634 [astro-ph.HE]
10.1016/j.astropartphys.2015.01.001
Astropart. Phys. **66**, 39 (2015)

86. “Multimessenger Search for Sources of Gravitational Waves and High-Energy Neutrinos: Results for Initial LIGO-Virgo and IceCube”
M. G. Aartsen *et al.* [IceCube and LIGO Scientific and Virgo Collaborations].
arXiv:1407.1042 [astro-ph.HE]
10.1103/PhysRevD.90.102002
Phys. Rev. D **90**, no. 10, 102002 (2014)

85. “Multipole analysis of IceCube data to search for dark matter accumulated in the Galactic halo”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1406.6868 [astro-ph.HE]
10.1140/epjc/s10052-014-3224-5
Eur. Phys. J. C **75**, no. 1, 20 (2015)

84. “Searches for Extended and Point-like Neutrino Sources with Four Years of IceCube Data”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1406.6757 [astro-ph.HE]
Astrophys. J. **796**, no. 2, 109 (2014)

83. “Observation of High-Energy Astrophysical Neutrinos in Three Years of IceCube Data”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1405.5303 [astro-ph.HE]
Phys. Rev. Lett. **113**, 101101 (2014)

82. “Exploring the Neutrinoless Double Beta Decay in the Inverted Neutrino Hierarchy with Bolometric Detectors”
D. R. Artusa *et al.* [CUORE Collaboration].
arXiv:1404.4469 [nucl-ex]
10.1140/epjc/s10052-014-3096-8
Eur. Phys. J. C **74**, no. 10, 3096 (2014)

81. “Search for non-relativistic Magnetic Monopoles with IceCube”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1402.3460 [astro-ph.CO]
Eur. Phys. J. C **74**, 2938 (2014)

80. “Letter of Intent: The Precision IceCube Next Generation Upgrade (PINGU)”
M. G. Aartsen *et al.* [IceCube-PINGU Collaboration].
arXiv:1401.2046 [physics.ins-det]

79. “Search for neutrino-induced particle showers with IceCube-40”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1312.0104 [astro-ph.HE]
Phys. Rev. D **89**, 102001 (2014)

78. “Search for a diffuse flux of astrophysical muon neutrinos with the IceCube 59-string configuration”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1311.7048 [astro-ph.HE]
Phys. Rev. D **89**, 062007 (2014)

77. “The IceProd Framework: Distributed Data Processing for the IceCube Neutrino Observatory”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1311.5904 [cs.DC]
J. Parallel Distrib. Comput. **75**, 198-211 (2015)

76. “Energy Reconstruction Methods in the IceCube Neutrino Telescope”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1311.4767 [physics.ins-det]
JINST **9**, P03009 (2014)

75. “Snowmass CF1 Summary: WIMP Dark Matter Direct Detection”
P. Cushman, C. Galbiati, D. N. McKinsey, H. Robertson, T. M. P. Tait, D. Bauer, A. Borgland and B. Cabrera *et al.*.
arXiv:1310.8327 [hep-ex]

74. “Probing the origin of cosmic-rays with extremely high energy neutrinos using the IceCube Observatory”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1310.5477 [astro-ph.HE]
Phys. Rev. D **88**, 112008 (2013)

73. “Improvement in Fast Particle Track Reconstruction with Robust Statistics”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1308.5501 [astro-ph.IM]
Nucl. Instrum. Meth. A **736**, 143 (2014)

72. “Search for Time-independent Neutrino Emission from Astrophysical Sources with 3 yr of IceCube Data”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1307.6669 [astro-ph.HE]
Astrophys. J. **779**, 132 (2013)

71. “Measurement of the cosmic ray energy spectrum with IceTop-73”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1307.3795 [astro-ph.HE]
Phys. Rev. D **88**, no. 4, 042004 (2013)

70. “IceCube Search for Dark Matter Annihilation in nearby Galaxies and Galaxy Clusters”
M. G. Aartsen, R. Abbasi, Y. Abdou, M. Ackermann, J. Adams, J. A. Aguilar, M. Ahlers and D. Altmann *et al.*.
arXiv:1307.3473 [astro-ph.HE]
Phys. Rev. D **88**, 122001 (2013)

69. “PINGU Sensitivity to the Neutrino Mass Hierarchy”
M. G. Aartsen *et al.* [IceCube and PINGU Collaborations].
arXiv:1306.5846 [astro-ph.IM]

68. “Observation of the cosmic-ray shadow of the Moon with IceCube”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1305.6811 [astro-ph.HE]
Phys. Rev. D **89**, 102004 (2014)

67. “Measurement of Atmospheric Neutrino Oscillations with IceCube”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1305.3909 [hep-ex]
Phys. Rev. Lett. **111**, 081801 (2013)

66. “First observation of PeV-energy neutrinos with IceCube”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1304.5356 [astro-ph.HE]
Phys. Rev. Lett. **111**, 021103 (2013)

65. “Measurement of South Pole ice transparency with the IceCube LED calibration system”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1301.5361 [astro-ph.IM]
Nucl. Instrum. Meth. A **711**, 73 (2013)

64. “Measurement of the Atmospheric ν_e flux in IceCube”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1212.4760 [hep-ex]
10.1103/PhysRevLett.110.151105
Phys. Rev. Lett. **110**, no. 15, 151105 (2013)

63. “Search for dark matter annihilations in the Sun with the 79-string IceCube detector”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1212.4097 [astro-ph.HE]
Phys. Rev. Lett. **110**, 131302 (2013)

62. “Search for Galactic PeV Gamma Rays with the IceCube Neutrino Observatory”
M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1210.7992 [astro-ph.HE]
Phys. Rev. D **87**, 062002 (2013)

61. “Observation of Cosmic Ray Anisotropy with the IceTop Air Shower Array”

M. G. Aartsen *et al.* [IceCube Collaboration].
arXiv:1210.5278 [astro-ph.HE]
Astrophys. J. **765**, 55 (2013)

60. "Search for Neutrinos from Annihilating Dark Matter in the Direction of the Galactic Center with the 40-String IceCube Neutrino Observatory"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1210.3557 [hep-ex]

59. "Searches for high-energy neutrino emission in the Galaxy with the combined IceCube-AMANDA detector"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1210.3273 [astro-ph.HE]
Astrophys. J. **763**, 33 (2013)

58. "Validation of techniques to mitigate copper surface contamination in CUORE"
F. Alessandria, *et al.*
arXiv:1210.1107 [nucl-ex]
Astropart. Phys. **45**, 13 (2013)

57. "The low energy spectrum of TeO_2 bolometers: results and perspectives for the CUORE-0 and CUORE experiments"
F. Alessandria *et al.* [CUORE Collaboration].
arXiv:1209.2519 [physics.ins-det];
JCAP **1301**, 038 (2013)

56. "Search for Relativistic Magnetic Monopoles with IceCube"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1208.4861 [astro-ph.HE]
Phys. Rev. D **87**, 022001 (2013)

55. "An improved method for measuring muon energy using the truncated mean of dE/dx"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1208.3430 [physics.data-an]
Nucl. Instrum. Meth. A **703**, 190 (2013)

54. "Lateral Distribution of Muons in IceCube Cosmic Ray Events"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1208.2979 [astro-ph.HE]
Phys. Rev. D **87**, 012005 (2013)

53. "IceTop: The surface component of IceCube"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1207.6326 [astro-ph.IM]
Nucl. Instrum. Meth. A **700**, 188 (2013)

52. "Cosmic Ray Composition and Energy Spectrum from 1-30 PeV Using the 40-String Configuration of IceTop and IceCube"

R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1207.3455 [astro-ph.HE]
Astropart. Phys. **42**, 15 (2013)

51. "South Pole glacial climate reconstruction from multi-borehole laser particulate stratigraphy"
M. G. Aartsen, *et al.* [IceCube Collaboration].
Journal of Glaciology **59** 218,1117 (2013).

50. "Use of event-level neutrino telescope data in global fits for theories of new physics"
P. Scott *et al.* [IceCube Collaboration].
arXiv:1207.0810 [hep-ph]
JCAP **1211**, 057 (2012)

49. "Search for ultrahigh-energy tau neutrinos with IceCube"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1202.4564 [astro-ph.HE];
Phys. Rev. D **86**, 022005 (2012).

48. "All-particle cosmic ray energy spectrum measured with 26 IceTop stations"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1202.3039 [astro-ph.HE];
Astropart. Phys. **44**, 40 (2013)

47. "Multi-year search for dark matter annihilations in the Sun with the AMANDA-II and IceCube detectors"
R. Abbasi *et al.* [IceCube Collaboration].
Phys. Rev. D **85**, 042002 (2012)

46. "Searching for soft relativistic jets in Core-collapse Supernovae with the IceCube Optical Follow-up Program"
R. Abbasi *et al.* [IceCube and Zoll The ROTSE Collaborations].
arXiv:1111.7030 [astro-ph.HE];
Astron. Astrophys. **539**, A60 (2012)

45. "The Design and Performance of IceCube DeepCore"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1109.6096 [astro-ph.IM]
Astropart. Phys. **35**, 615 (2012)

44. "Observation of an Anisotropy in the Galactic Cosmic Ray arrival direction at 400 TeV with IceCube"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1109.1017 [hep-ex];
Astrophys. J. **746**, 33 (2012)

43. "Sensitivity of CUORE to Neutrinoless Double-Beta Decay"
F. Alessandria, E. Andreotti, R. Ardito, C. Arnaboldi, F. T. Avignone, III, M. Balata, I. Bandac and T. I. Banks *et al.* [CUORE Collaboration].

arXiv:1109.0494 [nucl-ex]

42. “Double-beta decay of ^{130}Te to the first 0^+ excited state of ^{130}Xe with CUORICINO”
E. Andreotti *et al.* [CUORICINO Collaboration].
arXiv:1108.4313 [nucl-ex];
Phys. Rev. C **85**, 045503 (2012)

41. “Searches for periodic neutrino emission from binary systems with 22 and 40 strings of IceCube”
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1108.3023 [astro-ph.HE];
Astrophys. J. **748**, 118 (2012)

40. “Neutrino analysis of the September 2010 Crab Nebula flare and time-integrated constraints on neutrino emission from the Crab using IceCube”
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1106.3484 [astro-ph.HE];
Astrophys. J. **745**, 45 (2012)

39. “Observation of Anisotropy in the Arrival Directions of Galactic Cosmic Rays at Multiple Angular Scales with IceCube”
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1105.2326 [astro-ph.HE];
Astrophys. J. **740**, 16 (2011)

38. “A Search for a Diffuse Flux of Astrophysical Muon Neutrinos with the IceCube 40-String Detector”
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1104.5187 [astro-ph.HE]; Phys. Rev. D **84**, 082001 (2011)

37. “Time-Dependent Searches for Point Sources of Neutrinos with the 40-String and 22-String Configurations of IceCube”
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1104.0075 [astro-ph.HE];
Astrophys. J. **744**, 1 (2012)

36. “Constraints on the Extremely-high Energy Cosmic Neutrino Flux with the IceCube 2008-2009 Data”
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1103.4250 [astro-ph.CO];
Phys. Rev. D **83**, 092003 (2011), [Erratum-ibid. D **84**, 079902 (2011)]

35. “Background studies for acoustic neutrino detection at the South Pole”
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1103.1216 [astro-ph.IM];
Astropart. Phys. **35**, 312 (2012)

34. “Constraints on high-energy neutrino emission from SN 2008D”

R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1101.3942 [astro-ph.HE];
Astron. Astrophys. **527**, A28 (2011)

33. "Search for neutrino-induced cascades with five years of AMANDA data"
R. Abbasi, Y. Abdou, T. Abu-Zayyad, O. Actis, J. Adams, J. A. Aguilar, M. Ahlers and K. Andeen *et al.* [IceCube Collaboration].
Astropart. Phys. **34**, 420 (2011).

32. "Search for Dark Matter from the Galactic Halo with the IceCube Neutrino Observatory"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1101.3349 [astro-ph.HE];
Phys. Rev. D **84**, 022004 (2011)

31. "First search for atmospheric and extraterrestrial neutrino-induced cascades with the IceCube detector"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1101.1692 [astro-ph.HE];
Phys. Rev. D **84**, 072001 (2011)

30. "Limits on Neutrino Emission from Gamma-Ray Bursts with the 40 String IceCube Detector"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1101.1448 [astro-ph.HE];
Phys. Rev. Lett. **106**, 141101 (2011)

29. "Time-Integrated Searches for Point-like Sources of Neutrinos with the 40-String IceCube Detector"
R. Abbasi *et al.* [IceCube Collaboration].
arXiv:1012.2137 [astro-ph.HE]
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