

Naoko Kurahashi Neilson

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1. Education

2003–2010 Stanford University, Ph.D., Advisor: Giorgio Gratta
Dissertation: “Acoustic Detection of Ultra-high Energy Neutrinos”
1999–2002 University of California, Berkeley, B.A. Physics

2. Professional Appointments

2019– Drexel University, Department of Physics
Associate Professor
2014–2019 Drexel University, Department of Physics
Assistant Professor
2010–2014 University of Wisconsin, Madison, IceCube Neutrino Observatory
Postdoctoral Research Associate

3. External Funding

NSF CAREER, “CAREER: Towards the First Astronomical Catalog of Neutrino Sources,”
Principle Investigator, 03/01/2019-02/29/2024, \$748,707

NSF Grant PHYS-1607132, “Searches for Astrophysical Neutrino Sources with IceCube”,
Principle Investigator, 08/15/2016-7/31/2019, \$472,616

4. Internal Funding

Drexel Antelo Devereux Award for Young Faculty, 2018, \$7000

Drexel Research Co-op Award, 2016, \$7250

Drexel University Career Development Award, 2015, \$7,000

5. Select First/Main Author Publications

- * Complete List of Publications attached at the end
- * I publish as N. Kurahashi
- * IceCube publications list authors in alphabetical order

1. “Constraints on Neutrino Emission from Nearby Galaxies Using the 2MASS Redshift Survey and IceCube”, M.G. Aartsen et al. (IceCube Collaboration), Journal of Cosmology and Astroparticle Physics 7 (2020) 042

2. “Search for Sources of Astrophysical Neutrinos Using Seven Years of IceCube Cascade Events”, M.G. Aartsen et al. (IceCube Collaboration), *Astrophysical Journal* 886 (2019) 1
3. “Neutrino emission from the direction of the blazar TXS 0506+056 prior to the IceCube-170922A alert”, M.G. Aartsen et al. (IceCube Collaboration), *Science* 361 (2018) 6398
4. “Search for astrophysical sources of neutrinos using cascade events in IceCube”, M. G. Aartsen et al. (IceCube Collaboration), *Astrophysical Journal* 846 (2017) 2
5. “Lowering IceCube's Energy Threshold for Point Source Searches in the Southern Sky”, M. G. Aartsen et al. (IceCube Collaboration), *Astrophysical Journal Letters* 824 (2016) L28
6. “Evidence for High-Energy Extraterrestrial Neutrinos at the IceCube Detector”, M. G. Aartsen, et al. (IceCube Collaboration), *Science* 342 (2013) 1242856

6. Presentations

a. Conference Talks

APS “April” Meeting	<i>Invited, declined last minute due to COVID19 related childcare</i>	Apr 2020
Fermi Symposium	<u>Invited Plenary</u>	Nov 2018, Washington DC
APS “April” Meeting	<u>Invited Special Topics</u>	Jan 2017, Washington DC
DBD16		Nov 2016, Osaka, Japan
TeV Particle Astrophysics	<u>Invited Plenary</u>	Sep2016, CERN, Switzerland
AAS General Meeting		Jan 2016, Florida
AMON Realtime Workshop		Dec 2015, Penn State
Jefferson Lab Users’ Meeting	<u>Keynote speaker</u>	May 2015, JLab
Joint Space Institute/Univ of Maryland Workshop		Nov 2014, Annapolis, MD
Univ of Chicago/KICP High Energy Messengers		June 2014, Chicago, IL
APS April Meeting	<u>Invited Plenary</u>	April 2014, Savannah, GA
Cosmology and Particle Astrophysics Phenomenology		Nov 2013, Honolulu, HI
Neutrinos and Dark Matter in Nuclear Physics		May 2013, Pittsburg, PA
APS April Meeting		June 2012, Nara, Japan
International Cosmic Ray Conference		April 2012, Atlanta, GA
Topics in Astroparticle and Underground Physics		July 2009, Lodz, Poland
Acoustic/Radio EeV Neutrino detection Activities		July 2009, Rome, Italy
Acoustic /Radio EeV Neutrino detection Activities		June 2008, Rome, Italy
		May 2005, Berlin, Germany

b. Invited Colloquia and Seminars

SUNY Stony Brook	Physics Colloquium	Nov 2019
University of Maryland	Physics Colloquium	Nov 2018
Duke University	Physics Colloquium	Oct 2018
Temple University	Physics Colloquium	Feb 2018
Michigan State University	High Energy Physics Seminar	Mar 2017
Yale University	Nuclear Particle Seminar	Jan 2017
UCLA	Particle Physics Seminar	Jan 2016

MIT	Seminar	Dec 2015
University of Maryland	Seminar	Nov 2015
University of Tennessee, Knoxville	Physics Colloquium	Oct 2015
NASA Goddard Space Flight Center	Astrophysics Colloquium	Sep 2015
Northeastern University	Physics Colloquium	Sep 2015
University of Rochester	Physics Colloquium	Apr 2015
UMass Amherst	Particle/Nuclear Seminar	Apr 2015
Harvard University	LPPC Seminar	Mar 2015
Princeton/Institute for Advanced Study	joint Astronomy Colloquium	Mar 2015
Virginia Tech	Physics Colloquium	Oct 2014
University of Pennsylvania	HEP Seminar	Oct 2014
Argonne National Laboratory	HEP Division Seminar	Oct 2014
Drexel University	Physics Colloquium	Mar 2014
SUNY Albany	Physics Colloquium	Mar 2014
Georgia Tech	Physics Colloquium	Feb 2014
MIT	Lunchtime Seminar	Feb 2014
University of California, San Diego	Astrophysics Seminar	Feb 2014
Stanford University	SITP Seminar	Dec 2013
University of Michigan	HEP Seminar	Dec 2013
Columbia University	Physics Seminar	Mar 2013
University of Chicago	Enrico Fermi Institute Seminar	Dec 2012
Marquette University	Physics Dept. Colloquium	Apr 2012
Arizona State University	Cosmology Seminar	Apr 2011
Indiana University, Bloomington	HEP/Astronomy Seminar	Nov 2010
University of Hawaii, Manoa	Physics Colloquium	Jan 2010
University of Maryland	Nuclear Physics Seminar	Dec 2009
University of Wisconsin, Madison	NPAC Seminar	Dec 2009
Excellence Cluster/Technical Univ. Munich	High Energy Seminar	Jul 2009
San Jose State University	Physics & Astro Dept. Seminar	Apr 2008
CalTech	LIGO Science Seminar	May 2007

7. Teaching

a. Undergraduate Courses Taught

Fall Quarter 2019/20	PHYS 491 – Senior Research I
Fall Quarter 2019/20	UNIV 201 – Academics and Careers
Winter Quarter 2018/9	PHYS 201 – Fundamentals of Physics III
Fall Quarter 2016/7	UNIV 101 – The Drexel Experience
Fall Quarter 2015/6	UNIV 101 – The Drexel Experience
Fall Quarter 2015/6	PHYS 223 – Modern Physics Laboratory
Winter Quarter 2014/5	PHYS 201 – Fundamentals of Physics III

b. Graduate Courses Taught

Spring Quarter 2019/20	PHYS 517 – Quantum Mechanics II
Winter Quarter 2019/20	PHYS 516 – Quantum Mechanics I
Winter Quarter 2018/9	PHYS 516 – Quantum Mechanics I

Spring Quarter 2017/8	PHYS 517 – Quantum Mechanics II
Winter Quarter 2017/8	PHYS 516 – Quantum Mechanics I
Spring Quarter 2016/7	PHYS 517 – Quantum Mechanics II
Winter Quarter 2016/7	PHYS 516 – Quantum Mechanics I

8. Undergraduate Trainees

Johannes Wagner	Drexel co-op student 2018/19, senior thesis student 2019/20 on to PhD program at Univ. of California, Berkeley
Sarah Coccia	Drexel senior thesis student 2018/19 co-advisor
Brean Prefontaine	Drexel research student 2015/16, senior thesis student 2016/17, BS 2017 on to PhD program at Michigan State
Steve Sclafani	Drexel post-bac student 2016/17, on to PhD program at Drexel
Erixen Cruz	Drexel STAR student summer 2016, co-op student 2017 (included research abroad at Germany on IceCube), senior thesis student 2019/20
Mark Giovinazzi	Drexel co-op student 2016, BS 2018 on to PhD program at UPenn
Edward Callaghan	Drexel research student 2015/16, BS 2017 on to PhD program at Caltech
Daniel Douglas	Drexel co-op student 2015, senior thesis student 2015/16, BS 2016 on to PhD Program at Michigan State
Rachel Buttry	Drexel STAR student summer 2015, BS 2019 expected
Eesha Das Gupta	Drexel STAR student summer 2015, BS 2018
William Giang	Drexel senior thesis student 2014/15, BS 2015 on to PhD program at Univ. of Alberta

9. Graduate Trainees (Ph.D. and Postdoctoral)

Steve Scalfani	Drexel University PhD 2022 expected
Luna (XinYue) Kang	Drexel University PhD 2023 expected
Michael Campana	Drexel University PhD 2024 expected
Michael Kovacevich	Drexel University PhD 2024 expected
Michael Richman	Drexel University Postdoc, 2015-2019
Lizz Wills	Drexel University PhD 2018, <i>Thesis: "Probing cosmic ray anisotropy in the northern hemisphere with atmospheric neutrinos"</i>
Ben Relethford	Drexel University graduate student 2014-2018
Thorben Menne	Dortmund University, Germany, came to Drexel for 3 months in 2017 with scholarship from the German Academic Exchange Service (DAAD), PhD 2018

10. Others

a. University and Department Services

- Graduate Student Admissions Committee member, representing particle physics (2017/18, 2018/19, 2019/20)
- Physics Department Head Reappointment Committee member (2019/20)
- Christina Love Teaching Professor Promotion Committee member (2019/20)
- College of Arts and Sciences Advisory Committee for Promotion of Teaching Faculty (2019/20)

- Faculty Annual Review (FAR) Review Committee member, representing tenure-track faculty and the research area of particle physics (2016/7)
- Physics Department Head Search Committee member, representing tenure-track faculty (2015)
- Qualifying and Thesis Advisory (TAC) Committee member for about 4 to 10 graduate students every year
- Under-represented minority (URM) faculty interest group (2016-2017)
- Panel member at New Faculty Orientation's "What I wish I knew as new faculty" (2016, 2017, 2018, 2019, 2020)
- Panel member as past recipient at the Career Development Award Information Session (2016, 2017)
- Review and selection committee member of the Career Development Award (2016, 2017)
- Facilitator for ColorBrave Campus Dialogs for Faculty, an event by the Office of Faculty Affairs aimed to educate and empower faculty to have a purposeful discussion and address the issue of racial inequities (2018)

b. Professional Activities

- Swarthmore College Honors Examiner, 2020
- Lecturer at VERITAS and CTA at Barnard and Columbia Universities Summer Colloquium Series 2020
- Ad hoc proposal reviewer for NSF Particle Astrophysics, asked by Program Manager Jean Cottam Allen, Jan 2017
- Session Convener, APS "April" Meeting, Washington DC, Jan 2017
- AWIS Philadelphia Chapter Mentoring Circle mentor, 2014-2016
- Guest Lecturer, NASA Fermi Summer School, April 2015
- Started a free IceCube Immersion Program for local high school students, 2015, 2016, 2017

c. Public Talks

- Wagner Free Institute of Science of Philadelphia – Nov 2018, Annual Westbrook Free Lectureship
- Intrepid Sea, Air & Space Museum, New York – May 2016, Family Astronomy Night
- Sacred Heart Academy Science Symposium for Girls, Honolulu – Feb 2016, keynote speaker, ~350 middle school students and parents attended from the Hawaiian Islands
- Linda Hall Library, Kansas City – Oct 2015, evening public lecture at this largest privately endowed library of science, engineering, and technology in the US to over 400 people
- Academy of Notre Dame de Namur STEM Day, Villanova, PA – March 2015, keynote speaker talk to ~500 middle and high school girls

d. Media Interviews

- Symmetry Magazine, "Get to know 10 early-career experimentalists", Nov 26, 2019
- BBC World Service, "New Neutrino Source Found", July 12, 2018
- NPR, All Things Considered, July 12, 2018
- CNN, "Ghost particle' found in Antarctica provides astronomy breakthrough", July 12, 2018
- Wall Street Journal, "Scientists Track Neutrinos Through Ice to Their Source in the Cosmos", July 12, 2018

- Newsweek, “High Energy Neutrino Source Discovered, Research Heralds 'New Era' for Particle Physics”, July 12, 2018
- Philadelphia Inquirer, “For the first time, scientists harness ‘ghost particles’ to study the universe and its black holes”, July 12, 2018
- Christian Science Monitor, “Neutrino demonstration heralds a new way of observing the cosmos”, July 12, 2018
- Vox.com, “How a single neutrino just helped crack a 100-year-old cosmic ray mystery”, July 12, 2018
- Science News, “A high-energy neutrino has been traced to its galactic birthplace”, July 12, 2018
- Symmetry Magazine, “Scientists trace high-energy cosmic neutrino to its birthplace” July 12, 2018
- Drexel Now, “Drexel Astrophysicist Proves the Origin of Neutrinos”, July 12, 2018
- Symmetry Magazine “Casting a net for neutrinos”, Feb 18, 2016
- Drexel Ask Magazine’s “25 Faces For 25 Years”, 2015 issue
- Scientific America “Exotic space particles slam into buried South Pole Detector”, Apr 9, 2014
- Christian Science Monitor “Subatomic particles found in mile deep ice are of interstellar origins”, Nov 21, 2013
- Popular Mechanics “Found: Neutrinos From Beyond the Solar System”, Nov 21, 2013
- Fox News Science “Extraterrestrials on Earth: Scientists find outer space stuff at South Pole”, Nov 21, 2013
- NBC.com “Alien neutrinos reveal new frontier in astronomy at Antarctica’s IceCube”, Nov 21, 2013
- Wisconsin Public Radio, Larry Meiller Show, Dec 12, 2011

Complete List of Publications since Joining Drexel
(Sept 2014 – Dec 2020)

*I publish as N. Kurahashi

****Bold** indicates first/main author, *italic* indicates major contribution

1) eV-Scale Sterile Neutrino Search Using Eight Years of Atmospheric Muon Neutrino Data from the IceCube Neutrino Observatory

IceCube Collaboration (M.G. Aartsen et al.).

Phys.Rev.Lett. 125 (2020) 14, 141801

2) IceCube Search for Neutrinos Coincident with Compact Binary Mergers from LIGO-Virgo's First Gravitational-wave Transient Catalog

IceCube Collaboration (M.G. Aartsen et al.).

Astrophys.J.Lett. 898 (2020) 1, L10, Astrophys.J. 898 (2020) 1, L10

3) IceCube Search for High-Energy Neutrino Emission from TeV Pulsar Wind Nebulae

IceCube Collaboration (M.G. Aartsen et al.).

Astrophys.J. 898 (2020) 2, 117

4) Combined search for neutrinos from dark matter self-annihilation in the Galactic Center with ANTARES and IceCube

ANTARES and IceCube Collaborations (A. Albert et al.).

Phys.Rev.D 102 (2020) 8, 082002

5) In-situ calibration of the single-photoelectron charge response of the IceCube photomultiplier tubes

IceCube Collaboration (M.G. Aartsen et al.).

JINST 15 (2020) 06, 06

6) Characteristics of the diffuse astrophysical electron and tau neutrino flux with six years of IceCube high energy cascade data

IceCube Collaboration (M.G. Aartsen et al.).

Phys.Rev.Lett. 125 (2020) 12, 121104

7) *ANTARES and IceCube Combined Search for Neutrino Point-like and Extended Sources in the Southern Sky*

ANTARES and IceCube Collaborations (A. Albert et al.).

Astrophys.J. 892 (2020), 92

8) A search for IceCube events in the direction of ANITA neutrino candidates
IceCube Collaboration (M.G. Aartsen et al.).
Astrophys. J., 892 (2020), 1

9) Constraints on neutrino emission from nearby galaxies using the 2MASS redshift survey and IceCube

**IceCube Collaboration (M.G. Aartsen et al.).
JCAP 07 (2020), 042**

10) Combined sensitivity to the neutrino mass ordering with JUNO, the IceCube Upgrade, and PINGU

IceCube Gen2 and JUNO members Collaborations (M.G. Aartsen et al.).
Phys.Rev.D 101 (2020) 3, 032006

11) Time-Integrated Neutrino Source Searches with 10 Years of IceCube Data

*IceCube Collaboration (M.G. Aartsen et al.).
Phys.Rev.Lett. 124 (2020) 5, 051103*

12) Design and Performance of the first IceAct Demonstrator at the South Pole

IceCube Collaboration (M.G. Aartsen et al.).
JINST 15 (2020) 02, T02002

13) A Search for Neutrino Point-source Populations in 7 yr of IceCube Data with Neutrino-count Statistics

*IceCube Collaboration (M.G. Aartsen et al.).
Astrophys.J. 893 (2020) 2, 102*

14) Efficient propagation of systematic uncertainties from calibration to analysis with the SnowStorm method in IceCube

IceCube Collaboration (M.G. Aartsen et al.).
JCAP 10 (2019), 048

15) A Search for MeV to TeV Neutrinos from Fast Radio Bursts with IceCube

*IceCube Collaboration (M.G. Aartsen et al.).
Astrophys.J. 890 (2020) 2, 111*

16) Search for PeV Gamma-Ray Emission from the Southern Hemisphere with 5 Years of Data from the IceCube Observatory

*IceCube Collaboration (M.G. Aartsen et al.).
Astrophys.J. 891, 9*

17) Velocity Independent Constraints on Spin-Dependent DM-Nucleon Interactions from IceCube and PICO
IceCube and PICO Collaborations (M.G. Aartsen et al.).
Eur.Phys.J.C 80 (2020) 9, 819

18) Search for Sources of Astrophysical Neutrinos Using Seven Years of IceCube Cascade Events
IceCube Collaboration (M.G. Aartsen et al.).
Astrophys.J. 886 (2019), 12

19) Cosmic ray spectrum and composition from PeV to EeV using 3 years of data from IceTop and IceCube
IceCube Collaboration (M.G. Aartsen et al.).
Phys.Rev.D 100 (2019) 8, 082002

20) Development of an analysis to probe the neutrino mass ordering with atmospheric neutrinos using three years of IceCube DeepCore data
IceCube Collaboration (M.G. Aartsen et al.).
Eur.Phys.J.C 80 (2020) 1, 9

21) Neutrinos below 100 TeV from the southern sky employing refined veto techniques to IceCube data
IceCube Collaboration (M.G. Aartsen et al.).
Astropart.Phys. 116 (2020), 102392

22) *Investigation of two Fermi-LAT gamma-ray blazars coincident with high-energy neutrinos detected by IceCube*
Fermi-LAT and ASAS-SN and IceCube Collaborations (S. Garrappa et al.).
Astrophys.J. 880 (2019) 2, 880:103

23) Search for transient optical counterparts to high-energy IceCube neutrinos with Pan-STARRS1
Pan-STARRS and IceCube Collaborations (E. Kankare et al.).
Astron.Astrophys. 626 (2019), A117

24) Measurement of Atmospheric Tau Neutrino Appearance with IceCube DeepCore
IceCube Collaboration (M.G. Aartsen et al.).
Phys.Rev.D 99 (2019) 3, 032007

25) All-Sky Measurement of the Anisotropy of Cosmic Rays at 10 TeV and Mapping of the Local Interstellar Magnetic Field

HAWC and IceCube Collaborations (A.U. Abeysekara et al.).

Astrophys.J. 871 (2019) 1, 96

26) *Search for steady point-like sources in the astrophysical muon neutrino flux with 8 years of IceCube data*

IceCube Collaboration (M.G. Aartsen et al.).

Eur.Phys.J.C 79 (2019) 3, 234

27) Detection of the Temporal Variation of the Sun's Cosmic Ray Shadow with the IceCube Detector

IceCube Collaboration (M.G. Aartsen et al.).

Astrophys.J. 872 (2019) 2, 133

28) Search for Multimessenger Sources of Gravitational Waves and High-energy Neutrinos with Advanced LIGO during Its First Observing Run, ANTARES, and IceCube

ANTARES and IceCube and LIGO and Virgo Collaborations (A. Albert et al.).

Astrophys.J. 870 (2019) 2, 134

29) Measurements using the inelasticity distribution of multi-TeV neutrino interactions in IceCube

IceCube Collaboration (M.G. Aartsen et al.).

Phys.Rev.D 99 (2019) 3, 032004

30) Joint Constraints on Galactic Diffuse Neutrino Emission from the ANTARES and IceCube Neutrino Telescopes

ANTARES and IceCube Collaborations (A. Albert et al.).

Astrophys.J.Lett. 868 (2018) 2, L20, *Astrophys.J.* 868 (2018) 2, L20

31) Constraints on minute-scale transient astrophysical neutrino sources

IceCube Collaboration (M.G. Aartsen et al.).

Phys.Rev.Lett. 122 (2019) 5, 051102

32) *Multimessenger observations of a flaring blazar coincident with high-energy neutrino IceCube-170922A*

IceCube and Fermi-LAT and MAGIC and AGILE and ASAS-SN and HAWC and H.E.S.S. and INTEGRAL and Kanata and Kiso and Kapteyn and Liverpool Telescope and Subaru and Swift NuSTAR and VERITAS and VLA/17B-403 Collaborations (M.G. Aartsen et al.).

Science 361 (2018) no.6398, eaat1378.

33) Neutrino emission from the direction of the blazar TXS 0506+056 prior to the IceCube-170922A alert

**IceCube Collaboration (M.G. Aartsen et al.).
Science 361 (2018) no.6398, 147-151.**

34) A Search for Neutrino Emission from Fast Radio Bursts with Six Years of IceCube Data
IceCube Collaboration (M.G. Aartsen et al.).
Astrophys.J. 857 (2018) no.2, 117.

35) Measurement of the multi-TeV neutrino cross section with IceCube using Earth absorption
IceCube Collaboration (M.G. Aartsen et al.).
Nature 551 (2017) 596-600.

36) Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with
ANTARES, IceCube, and the Pierre Auger Observatory
ANTARES and IceCube and Pierre Auger and LIGO Scientific and Virgo Collaborations (A.
Albert et al.).
Astrophys.J. 850 (2017) no.2, L35.

37) Multi-messenger Observations of a Binary Neutron Star Merger
LIGO Scientific and Virgo and Fermi GBM and INTEGRAL and IceCube and IPN and Insight-
Hxmt and ANTARES and Swift and Dark Energy Camera GW-EM and Dark Energy Survey and
DLT40 and GRAWITA and Fermi-LAT and ATCA and ASKAP and OzGrav and DWF (Deeper
Wider Faster Program) and AST3 and CAASTRO and VINROUGE and MASTER and J-GEM
and GROWTH and JAGWAR and CaltechNRAO and TTU-NRAO and NuSTAR and Pan-
STARRS and KU and Nordic Optical Telescope and ePESSTO and GROND and Texas Tech
University and TOROS and BOOTES and MWA and CALET and IKI-GW Follow-up and
H.E.S.S. and LOFAR and LWA and HAWC and Pierre Auger and ALMA and Pi of Sky and
DFN and ATLAS Telescopes and High Time Resolution Universe Survey and RIMAS and
RATIR and SKA South Africa/MeerKAT Collaborations and AstroSat Cadmium Zinc Telluride
Imager Team and AGILE Team and 1M2H Team and Las Cumbres Observatory Group and
MAXI Team and TZAC Consortium and SALT Group and Euro VLBI Team and Chandra Team
at McGill University (B.P. Abbott et al.).
Astrophys.J. 848 (2017) no.2, L12.

38) Search for Nonstandard Neutrino Interactions with IceCube DeepCore
IceCube Collaboration (M. G. Aartsen et al.).
Phys.Rev. D97 (2018) no.7, 072009.

39) Measurement of Atmospheric Neutrino Oscillations at 6–56 GeV with IceCube DeepCore
IceCube Collaboration (M.G. Aartsen et al.).
Phys.Rev.Lett. 120 (2018) no.7, 071801.

40) *Constraints on Galactic Neutrino Emission with Seven Years of IceCube Data*
IceCube Collaboration (M.G. Aartsen et al.).
Astrophys.J. 849 (2017) no.1, 67.

41) Search for Neutrinos from Dark Matter Self-Annihilations in the center of the Milky Way
with 3 years of IceCube/DeepCore
IceCube Collaboration (M.G. Aartsen et al.).
Eur.Phys.J. C77 (2017) no.9, 627.

42) Measurement of the ν_{μ} energy spectrum with IceCube-79
IceCube Collaboration (M.G. Aartsen et al.).
Eur.Phys.J. C77 (2017) no.10, 692.

43) Search for astrophysical sources of neutrinos using cascade events in IceCube
IceCube Collaboration (M.G. Aartsen et al.).
***Astrophys.J.* 846 (2017) no.2, 136.**

44) Search for High-energy Neutrinos from Gravitational Wave Event GW151226 and
Candidate LVT151012 with ANTARES and IceCube
ANTARES and IceCube and LIGO Scientific and Virgo Collaborations (A. Albert et al.).
Phys.Rev. D96 (2017) no.2, 022005.

45) Extending the search for muon neutrinos coincident with gamma-ray bursts in IceCube data
IceCube Collaboration (M.G. Aartsen et al.).
Astrophys.J. 843 (2017) no.2, 112.

46) *Multiwavelength follow-up of a rare IceCube neutrino multiplet*
IceCube Collaboration (M.G. Aartsen et al.).
Astron.Astrophys. 607 (2017) A115.

47) Search for sterile neutrino mixing using three years of IceCube DeepCore data
IceCube Collaboration (M.G. Aartsen et al.).
Phys.Rev. D95 (2017) no.11, 112002.

48) First search for dark matter annihilations in the Earth with the IceCube Detector
IceCube Collaboration (M.G. Aartsen et al.).

Eur.Phys.J. C77 (2017) no.2, 82.

49) The IceCube Realtime Alert System
IceCube Collaboration (M.G. Aartsen et al.).
Astropart.Phys. 92 (2017) 30-41.

50) Search for annihilating dark matter in the Sun with 3 years of IceCube data
IceCube Collaboration (M.G. Aartsen et al.).
Eur.Phys.J. C77 (2017) no.3, 146.

51) The IceCube Neutrino Observatory: Instrumentation and Online Systems
IceCube Collaboration (M.G. Aartsen et al.).
JINST 12 (2017) no.03, P03012.

52) *The contribution of Fermi-2LAC blazars to the diffuse TeV-PeV neutrino flux*
IceCube Collaboration (M.G. Aartsen et al.).
Astrophys.J. 835 (2017) no.1, 45.

53) *Very High-Energy Gamma-Ray Follow-Up Program Using Neutrino Triggers from IceCube
By IceCube and MAGIC and VERITAS Collaborations* (M.G. Aartsen et al.).
JINST 11 (2016) no.11, P11009.

54) *All-sky search for time-integrated neutrino emission from astrophysical sources with 7 years
of IceCube data*
IceCube Collaboration (M.G. Aartsen et al.).
Astrophys.J. 835 (2017) no.2, 151.

55) Observation and Characterization of a Cosmic Muon Neutrino Flux from the Northern
Hemisphere using six years of IceCube data
IceCube Collaboration (M.G. Aartsen et al.).
Astrophys.J. 833 (2016) no.1, 3.

56) *Constraints on ultra-high-energy cosmic ray sources from a search for neutrinos above 10
PeV with IceCube*
IceCube Collaboration (M.G. Aartsen et al.).
Phys.Rev.Lett. 117 (2016) no.24, 241101.

57) Search for Sources of High-Energy Neutrons with four Years of Data from the IceTop
Detector
IceCube Collaboration (M.G. Aartsen et al.).

Astrophys.J. 830 (2016) no.2, 129.

58) All-flavour Search for Neutrinos from Dark Matter Annihilations in the Milky Way with IceCube/DeepCore

IceCube Collaboration (M.G. Aartsen et al.).

Eur.Phys.J. C76 (2016) no.10, 531.

59) Neutrino oscillation studies with IceCube-DeepCore

IceCube Collaboration (M.G. Aartsen et al.).

Nucl.Phys. B908 (2016) 161-177.

60) Searches for Sterile Neutrinos with the IceCube Detector

IceCube Collaboration (M.G. Aartsen et al.).

Phys.Rev.Lett. 117 (2016) no.7, 071801.

**61) Lowering IceCube's Energy Threshold for Point Source Searches in the Southern Sky
IceCube Collaboration (M.G. Aartsen et al.).**

Astrophys.J. Lett. 824 (2016) no.2, L28.

62) Anisotropy in Cosmic-ray Arrival Directions in the Southern Hemisphere Based on six Years of Data From the Icecube Detector

IceCube Collaboration (M.G. Aartsen et al.).

Astrophys.J. 826 (2016) no.2, 220.

63) High-energy Neutrino follow-up search of Gravitational Wave Event GW150914 with ANTARES and IceCube

ANTARES and IceCube and LIGO Scientific and Virgo Collaborations (S. Adrian-Martinez et al.).

Phys.Rev. D93 (2016) no.12, 122010.

64) An All-Sky Search for Three Flavors of Neutrinos from Gamma-Ray Bursts with the IceCube Neutrino Observatory

IceCube Collaboration (M.G. Aartsen et al.).

Astrophys.J. 824 (2016) no.2, 115.

65) Improved limits on dark matter annihilation in the Sun with the 79-string IceCube detector and implications for supersymmetry

IceCube Collaboration (M.G. Aartsen et al.).

JCAP 1604 (2016) no.04, 022.

66) *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*
IceCube and Pierre Auger and Telescope Array Collaborations (M.G. Aartsen et al.).
JCAP 1601 (2016) no.01, 037.

67) *The First Combined Search for Neutrino Point-sources in the Southern Hemisphere With the Antares and Icecube Neutrino Telescopes*
ANTARES and IceCube Collaborations (S. Adrian-Martinez et al.).
Astrophys.J. 823 (2016) no.1, 65.

68) *Searches for Relativistic Magnetic Monopoles in IceCube*
IceCube Collaboration (M.G. Aartsen et al.).
Eur.Phys.J. C76 (2016) no.3, 133.

69) *Search for Astrophysical Tau Neutrinos in Three Years of IceCube Data*
IceCube Collaboration (M.G. Aartsen et al.).
Phys.Rev. D93 (2016) no.2, 022001.

70) *Search for Transient Astrophysical Neutrino Emission with IceCube-DeepCore*
IceCube Collaboration (M.G. Aartsen et al.).
Astrophys.J. 816 (2016) no.2, 75.

71) *Evidence for Astrophysical Muon Neutrinos from the Northern Sky with IceCube*
IceCube Collaboration (M.G. Aartsen et al.).
Phys.Rev.Lett. 115 (2015) no.8, 081102.

72) *A combined maximum-likelihood analysis of the high-energy astrophysical neutrino flux measured with IceCube*
IceCube Collaboration (M.G. Aartsen et al.).
Astrophys.J. 809 (2015) no.1, 98.

73) *Characterization of the Atmospheric Muon Flux in IceCube*
IceCube Collaboration (M.G. Aartsen et al.).
Astropart.Phys. 78 (2016) 1-27.

74) *The Detection of a SN II in Optical Follow-up Observations of IceCube Neutrino Events*
IceCube and PTF and Swift Collaborations and Pan-STARRS1 Science Consortium (M.G. Aartsen et al.).
Astrophys.J. 811 (2015) no.1, 52.

75) Search for Dark Matter Annihilation in the Galactic Center with IceCube-79
IceCube Collaboration (M.G. Aartsen et al.).
Eur.Phys.J. C75 (2015) no.10, 492.

76) Measurement of the Atmospheric ν_e Spectrum with IceCube
IceCube Collaboration (M.G. Aartsen et al.).
Phys.Rev. D91 (2015) 122004.

77) *Searches for Time Dependent Neutrino Sources with IceCube Data from 2008 to 2012*
IceCube Collaboration (M.G. Aartsen et al.).
Astrophys.J. 807 (2015) no.1, 46.

78) Flavor Ratio of Astrophysical Neutrinos above 35 TeV in IceCube
IceCube Collaboration (M.G. Aartsen et al.).
Phys.Rev.Lett. 114 (2015) no.17, 171102.

79) Search for Prompt Neutrino Emission from Gamma-Ray Bursts with IceCube
IceCube Collaboration (M.G. Aartsen et al.).
Astrophys.J. 805 (2015) no.1, L5.

80) Determining neutrino oscillation parameters from atmospheric muon neutrino disappearance
with three years of IceCube DeepCore data
IceCube Collaboration (M.G. Aartsen et al.).
Phys.Rev. D91 (2015) no.7, 072004.

81) Atmospheric and astrophysical neutrinos above 1 TeV interacting in IceCube
IceCube Collaboration (M.G. Aartsen et al.).
Phys.Rev. D91 (2015) no.2, 022001.

