

**PUBLICATIONS**  
**ARTHUR B. McDONALD**

**List of Publications**

- 1) Improved search for invisible modes of nucleon decay in water with the SNO+ detector, SNO+ Collaboration, SNO+ Collaboration, Phys. Rev. D 105, 112012 (2022)
- 2) A Facility for Low-Radioactivity Underground Argon, H. Back et al (DarkSide Collaboration) arXiv:2203.09734 (2022)
- 3) First Direct Detection Constraints on Planck-Scale Mass Dark Matter with Multiple-Scatter Signatures Using the DEAP-3600 Detector, P. Adhikari et al. (DEAP Collaboration) Phys. Rev. Lett. 128, 011801 (2022)
- 4) Optical calibration of the SNO+ detector in the water phase with deployed sources, SNO+ Collaboration, Journal of Instrumentation, Volume 16, 10021 (2021)
- 5) The SNO+ experiment, SNO+ Collaboration, Journal of Instrumentation, Volume 16, 08059 (2021)
- 6) The novel Mechanical Ventilator Milano for the COVID-19 pandemic, MVM Collaboration, Physics of Fluids 33, 037122 (2021)
- 7) Development, characterisation, and deployment of the SNO+ liquid scintillator. SNO+ Collaboration, Journal of Instrumentation, 16(05), 05009 (2021)
- 8) Separating  $^{39}\text{Ar}$  from  $^{40}\text{Ar}$  by cryogenic distillation with Aria for dark-matter searches, DarkSide 20k Collaboration, The European Physical Journal C, 81(4), 359 (2021)
- 9) Sensitivity of future liquid argon dark matter search experiments to core-collapse supernova neutrinos. Journal of Cosmology and Astroparticle Physics, 2021(03), 043 (2021)
- 10) Pulse-shape discrimination against low-energy Ar-39 beta decays in liquid argon with 4.5 tonne-years of DEAP-3600 data, DEAP Collaboration, The European Physical Journal C volume 81, Article number: 823 (2021)
  
- 11) A search for hep solar neutrinos and the diffuse supernova neutrino background using all three phases of the Sudbury Neutrino Observatory  
SNO Collaboration Phys. Rev. D 102, 062006 (2020)
  
- 12) Constraints on dark matter-nucleon effective couplings in the presence of kinematically distinct halo substructures using the DEAP-3600 detector  
DEAP Collaboration B. Aharmim et al Phys. Rev. D 102, 082001 (2020)
  
- 13) SiPM-matrix readout of two-phase argon detectors using electroluminescence in the visible and near infrared range  
DarkSide collaboration C.E Aalseth et al, Eur. Phys. J. C (2021) 81: 153
  
- 14) Measurement of neutron-proton capture in the SNO+ water phase  
SNO+ Collaboration, Phys.Rev. C102 (2020) no.1, 014002
  
- 15) Electromagnetic Backgrounds and Potassium-42 Activity in the DEAP-3600 Dark Matter Detector  
DEAP Collaboration, Phys. Rev. D 100, 072009 (2019)

- 16) Measurement of neutron production in atmospheric neutrino interactions at the Sudbury Neutrino Observatory  
SNO Collaboration, Phys. Rev. D 99, 112007 (2019)
- 17) Search for dark matter with a 231-day exposure of liquid argon using DEAP-3600 at SNOLAB  
DEAP Collaboration, Phys. Rev. D 100, 022004 (2019)
- 18) Search for invisible modes of nucleon decay in water with the SNO+ detector  
SNO+ Collaboration, Phys. Rev. D 99, 032008 (2019)
- 19) Measurement of the  $^8\text{B}$  Solar Neutrino Flux in SNO+ with Very Low Backgrounds  
SNO+ Collaboration, Phys. Rev. D 99, 012012 (2019)
- 20) Constraints on Neutrino Lifetime from the Sudbury Neutrino Observatory  
SNO Collaboration, Phys. Rev. D 99, 032013 (2019)
- 21) Tests of Lorentz invariance at the Sudbury Neutrino Observatory  
SNO Collaboration, Phys. Rev. D 98, 112013 (2018)
- 22) Design and Construction of the DEAP-3600 Dark Matter Detector  
DEAP Collaboration P-A. Amaudruz et al. Astropart. Phys. 108 (2019) 1-23
- 23) Search for Zero-Neutrino Double Beta Decay in  $^{76}\text{Ge}$  with the Majorana Demonstrator  
Majorana Collaboration, C.E. Aalseth et al Phys. Rev. Lett. 120, 132502 (2018)
- 24) DarkSide-20k: A 20 Tonne Two-Phase LAr TPC for Direct Dark Matter Detection at LNGS  
DarkSide Collaboration, C.E. Aalseth et al, Eur. Phys. J. Plus (2018) 133: 131
- 25) First results from the DEAP-3600 dark matter search with argon at SNOLAB  
DEAP Collaboration, P-A. Amaudruz et al, Phys. Rev. Lett. 121, 071801 (2018)
- 26) In-situ characterization of the Hamamatsu R5912-HQE photomultiplier tubes used in the DEAP-3600 experiment  
DEAP Collaboration, P-A. Amaudruz et al, Nucl. Instrum. Methods Phys. Res. A 922, 373-384 (2019)
- 27) The search for neutron-antineutron oscillations at the Sudbury Neutrino Observatory  
SNO Collaboration, B. Aharmim et al Phys. Rev. D 96, 092005 (2017)
- 28) THE SUDBURY NEUTRINO OBSERVATORY  
A. Bellerive, J. R. Klein, A. B. McDonald, A. J. Noble, A. W. P. Poon, for the SNO Collaboration Nuclear Physics B 908, 30-51 (2016)
- 29) NOBEL LECTURE: THE SUDBURY NEUTRINO OBSERVATORY: OBSERVATION OF FLAVOR CHANGE FOR SOLAR NEUTRINOS  
A. B. McDonald Rev. Mod. Phys. 88 030502 (2016)
- 30) CURRENT STATUS AND FUTURE PROSPECTS FOR THE SNO+ EXPERIMENT  
S. Andringa et al (SNO+ Collaboration) Advances in High Energy Physics, Volume 2016, Article ID 6194250 (2016)

31) RADON BACKGROUNDS IN THE DEAP-1 LIQUID ARGON-BASED DARK MATTER DETECTOR

P.-A. Amaudruz, M. Batygov, B. Beltran, K. Boudjemline, M. G. Boulay B. Cai T. Caldwell, M. Chen, R. Chouinard, B. T. Cleveland, D. Contreras, K. Dering, F. Duncan, R. Ford, R. Gagnon F. Giuliani, M. Gold V. V. Golovko, P. Gorel, K. Graham, D. R. Grant, R. Hakobyan, A. L. Hallin, P. Harvey, C. Hearn, C. J. Jillings, M. Kuźniak, I. Lawson, O. Li, J. Lidgard, P. Liimatainen, W. H. Lippincott, R. Mathew, A. B. McDonald, T. McElroy, K. McFarlane, D. McKinsey, A. Muir, C. Nantais, K. Nicolics, J. Nikkel, T. Noble, E. O'Dwyer, K. S. Olsen, C. Ouellet, P. Pasuthip, T. Pollmann, W. Rau, F. Retiere, M. Ronquest, P. Skensved, T. Sonley, J. Tang, E. Vázquez-Jáuregui, L. Veloce, M. Ward, *Astroparticle Physics* 62, 178-194 (2015)

32) IMPROVING PHOTOELETRON COUNTING AND PARTICLE IDENTIFICATION IN SCINTILLATION IN SCINTILLATION DETECTORS WITH BAYSEAN TECHNIQUES

M. Akashi-Ronquest, P. A. Amaudruz, M. Batygov, B. Beltran, M. Bodmer, M. G. Boulay, B. Broerman, B. Buck, A. Butcher, B. Cai, T. Caldwell, M. Chen, Y. Chen, B. Cleveland, K. Coakley, K. Dering, F. A. Duncan, J. A. Formaggio, R. Gagnon, D. Gastler, F. Giuliani, M. Gold, V. V. Golovko, P. Gorel, K. Graham, E. Grace, N. Guerrero, V. Guiseppe, A. L. Hallin, P. Harvey, C. Hearn, R. Henning, A. Hime, J. Hofgartner, S. Jaditz, C. J. Jillings, C. Kachulis, E. Kearns, J. Kelsey, J. R. Klein, M. Kuzniak, A. LaTorre, I. Lawson, O. Li, J. J. Lidgard, P. Liimatainen, S. Linden, K. McFarlane, D. N. McKinsey, S. MacMullin, A. Mastbaum, R. Mathew, A. B. McDonald, D. M. Mei, J. Monroe, A. Muir, C. Nantais, K. Nicolics, J. A. Nikkel, T. Noble, E. O'Dwyer, K. Olsen, G. D. Orebi Gann, C. Ouellet, K. Palladino, P. Pasuthip, G. Perumpilly, T. Pollmann, P. Rau, F. Retiere, K. Rielage, R. Schnee, S. Seibert, P. Skensved, T. Sonley, E. Vazquez-Jauregui, L. Veloce, J. Walding, B. Wang, J. Wang, M. Ward, C. Zhang, *Astroparticle Physics*, Vol. 65, 01.05.2015, p. 40–54.

33) A SEARCH FOR ASTROPHYSICAL BURST SIGNALS AT THE SUDBURY NEUTRINO OBSERVATORY

The SNO Collaboration (B. Aharmim et al) *Astroparticle Physics* 55, 1-7 (2013).

34) COMBINED ANALYSIS OF ALL THREE PHASES OF SOLAR NEUTRINO DATA FROM THE SUDBURY NEUTRINO OBSERVATORY

The SNO Collaboration (B. Aharmim et al) *Phys. Rev. C* 88, 025501 (2013)

35) MEASUREMENT OF THE  $\nu_e$  AND TOTAL  $^8\text{B}$  NEUTRINO FLUXES WITH THE SUDBURY NEUTRINO OBSERVATORY PHASE-III DATA SET

B. Aharmim, S. N. Ahmed, J. F. Amsbaugh, J. M. Anaya, A. E. Anthony, J. Banar, N. Barros, E. W. Beier, A. Bellerive, B. Beltran, M. Bergevin, S. D. Biller, K. Boudjemline, M. G. Boulay, T. J. Bowles, M. C. Browne, T. V. Bullard, T. H. Burritt, B. Cai, Y. D. Chan, D. Chauhan, M. Chen, B. T. Cleveland, G. A. Cox, C. A. Currat, X. Dai, H. Deng, J. A. Detwiler, M. DiMarco, P. J. Doe, G. Doucas, M. R. Dragowsky, P.-L. Drouin, C. A. Duba, F. A. Duncan, M. Dunford, E. D. Earle, S. R. Elliott, H. C. Evans, G. T. Ewan, J. Farine, H. Fergani, F. Fleurot, R. J. Ford, J. A. Formaggio, M. M. Fowler, N. Gagnon, J. V. Germani, A. Goldschmidt, J. T. M. Goon, K. Graham, E. Guillian, S. Habib R. L. Hahn, A. L. Hallin, E. D. Hallman, A. A. Hamian, G. C. Harper, P. J. Harvey, R. Hazama, K. M. Heeger, W. J. Heintzelman, J. Heise, R. L. Helmer, R. Henning, A. Hime, C. Howard, M. A. Howe, M. Huang, P. Jagam, B. Jamieson, N. A. Jelley, K. J. Keeter, J. R. Klein, L. L. Kormos, M. Kos, A. Kruger, C. Kraus, C. B. Krauss, T. Kutter, C. C. M. Kyba, R. Lange, J. Law, I. T. Lawson, K. T. Lesko, J. R. Leslie, J. C. Loach, R. MacLellan, S. Majerus, H. B. Mak, J. Maneira, R. Martin, N. McCauley, A. B. McDonald, S. R. McGee, C. Mifflin G. G. Miller, M. L. Miller, B. Monreal, J. Monroe, B. Morissette, A. W. Myers, B. G. Nickel, A. J. Noble, H. M. O'Keefe, N. S.

Oblath, R. W. Ollerhead, G. D. Orebi Gann, S. M. Oser, R. A. Ott, S. J. M. Peeters, A. W.P. Poon, G. Prior, S. D. Reitzner, K. Rielage, B. C. Robertson, R. G. H. Robertson, E. Rollin, M. H. Schwendener, J. A. Secrest, S. R. Seibert, O. Simard, J. J. Simpson, P. Skensved, M. W. E. Smith, T. J. Sonley, T. D. Steiger, L. C. Stonehill, G. Tesic P. M. Thornewell, N. Tolich, T. Tsui, C. D. Tunnell, T. Van Wechel, R. Van Berg, B. A. VanDevender, C. J. Virtue, B. L. Wall, D. Waller, H. Wan Chan Tseung, J. Wendland, N. West, J. B. Wilhelmy, J. F. Wilkerson, J. R. Wilson, J. M. Wouters, A. Wright, M. Yeh, F. Zhang, and K. Zuber, *Phys.Rev.* C87 (2013) 015502

36) LOW MULTIPLICITY BURST SEARCH AT THE SUDBURY NEUTRINO OBSERVATORY

The SNO Collaboration (B. Aharmim et al), *Astrophys.J.*728:83, 2011.

37) SNO AND THE NEW SNOLAB

A. B. McDonald, *Prog. Part. Nucl. Phys.* 64:196-198, 2010.

38) THE CALIBRATION OF THE SUDBURY NEUTRINO OBSERVATORY USING UNIFORMLY DISTRIBUTED SOURCES

K. Boudjemline, B. Cai, B.T. Cleveland, H.C. Evans, G.T. Ewan, J. Farine, R.J. Ford, E. Guillian, A.L. Hallin, E.D. Hallman, C. Howard, P. Jagam, N.A. Jelley, K.J. Keeter, J.R. Klein, C. Kraus, C.B. Krauss, R. Lange, I.T. Lawson, J.C. Loach, A.B. McDonald, G. McGregor, A.J. Noble, H.M. O'Keefe, S.J.M. Peeters, A.W.P. Poon, S.D. Reitzner, K. Rielage, R.G.H. Robertson, V.L. Rusu, S.R. Seibert, P. Skensved, M.J. Thomson. *Nucl. Instrum. Meth.* A620:171-181, 2010.

39) LOW ENERGY THRESHOLD ANALYSIS OF THE PHASE I AND PHASE II DATA SETS OF THE SUDBURY NEUTRINO OBSERVATORY

B. Aharmim, S.N. Ahmed, A.E. Anthony, N. Barros, E.W. Beier, A. Bellerive, B. Beltran, M. Bergevin, S.D. Biller, K. Boudjemline, M.G. Boulay, T.H. Burritt, B. Cai, Y.D. Chan, D. Chauhan, M. Chen, B.T. Cleveland, G.A. Cox, X. Dai, H. Deng, J. Detwiler, M. DiMarco, P.J. Doe, G. Doucas, P.-L. Drouin, C. A. Duba, F.A. Duncan, M. Dunford, E. D. Earle, S.R. Elliott, H.C. Evans, G.T. Ewan, J. Farine, H. Fergani, F. Fleurot, R.J. Ford, J.A. Formaggio, N. Gagnon, J.T.M. Goon, E. Guillian, S. Habib, R.L. Hahn, A.L. Hallin, E.D. Hallman, P.J. Harvey, R. Hazama, W.J. Heintzelman, J. Heise, R.L. Helmer, A. Hime, C. Howard, M.A. Howe, M. Huang, B. Jamieson, N.A. Jelley, K. J. Keeter, J.R. Klein, L. L. Kormos, M. Kos, C. Kraus, C.B. Krauss, T. Kutter, C.C.M. Kyba, J. Law, I.T. Lawson, K.T. Lesko, J.R. Leslie, I. Levine, J.C. Loach, R. MacLellan, S. Majerus, H.B. Mak, J. Maneira, R. Martin, N. McCauley, A.B. McDonald, S. McGee, M.L. Miller, B. Monreal, J. Monroe, B. Morrisette, B. G. Nickel, A.J. Noble, H. M. O'Keefe, N.S. Oblath, G.D. Orebi Gann, S.M. Oser, R.A. Ott, S.J.M. Peeters, A.W.P. Poon, G. Prior, D. Reitzner, K. Rielage, B.C. Robertson, R.G.H. Robertson, M.H. Schwendener, J.A. Secrest, S.R. Seibert, O. Simard, D. Sinclair, P. Skensved, M.W.E. Smith, T.J. Sonley, L.C. Stonehill, G. Tesic, N. Tolich, T. Tsui, C. D. Tunnell, R. Van Berg, B.A. VanDevender, C.J. Virtue, B. L. Wall, D. Waller, H. Wan Chan Tseung, D.L. Wark, N. West, J.F. Wilkerson, J.R. Wilson, J.M. Wouters, A. Wright, M. Yeh, F. Zhang and K. Zuber, *Phys.Rev.*C81:055504, 2010

40) THE SUDBURY NEUTRINO OBSERVATORY

N. Jelley, A. B. McDonald, R.G.H. Robertson, *Ann.Rev.Nucl.Part.Sci.*59:431-465, 2009.

41) MEASUREMENT OF THE COSMIC RAY AND NEUTRINO-INDUCED MUON FLUX AT THE SUDBURY NEUTRINO OBSERVATORY

B. Aharmim, S.N. Ahmed, T.C. Andersen, A.E. Anthony, N. Barros, E.W. Beier, A. Bellerive, B. Beltran, M. Bergevin, S.D. Biller, K. Boudjemline, M.G. Boulay, T.H. Burritt, B. Cai, Y.D. Chan, M. Chen, M.C. Chon, B.T. Cleveland, G.A. Cox-Mobrand, C.A. Currat, X. Dai, F. Dalnoki-Veress, H. Deng, J. Detwiler, P.J. Doe, R.S. Dosanjh, G. Doucas, P.-L. Drouin, F.A. Duncan, M. Dunford, S.R. Elliott, H.C. Evans, G.T. Ewan, J. Farine, H. Fergani, F. Fleurot, R.J. Ford, J.A. Formaggio, N. Gagnon, J.T.M. Goon, D.R. Grant, E. Guillian, S. Habib, R.L. Hahn, A.L. Hallin, E.D. Hallman, C.K. Hargrove, P.J. Harvey, R. Hazama, K.M. Heeger, W.J. Heintzelman, J. Heise, R.L. Helmer, R.J. Hemingway, R. Henning, A. Hime, C. Howard, M.A. Howe, M. Huang, B. Jamieson, N.A. Jelley, J.R. Klein, M. Kos, A. Kruger, C. Kraus, C.B. Krauss, T. Kutter, C.C.M. Kyba, R. Lange, J. Law, I.T. Lawson, K.T. Lesko, J.R. Leslie, I. Levine, J.C. Loach, S. Luoma, R. MacLellan, S. Majerus, H.B. Mak, J. Maneira, A.D. Marino, R. Martin, N. McCauley, A.B. McDonald, S. McGee, C. Mifflin, M.L. Miller, B. Monreal, J. Monroe, A.J. Noble, N.S. Oblath, C.E. Okada, H.M. O'Keefe, Y. Opachich, G.D. Orebi Gann, S.M. Oser, R.A. Ott, S.J.M. Peeters, A.W.P. Poon, G. Prior, K. Rielage, B.C. Robertson, R.G.H. Robertson, E. Rollin, M.H. Schwendener, J.A. Secrest, S.R. Seibert, O. Simard, J.J. Simpson, D. Sinclair, P. Skensved, M.W.E. Smith, T.J. Sonley, T.D. Steiger, L.C. Stonehill, N. Tagg, G. Tesic, N. Tolich, T. Tsui, R.G. Van de Water, B.A. VanDevender, C.J. Virtue, D. Waller, C.E. Waltham, H. Wan Chan Tseung, D.L. Wark, P. Watson, J. Wendland, N. West, J.F. Wilkerson, J.R. Wilson, J.M. Wouters, A. Wright, M. Yeh, F. Zhang and K. Zuber  
Phys.Rev.D80:012001, 2009.

#### 42) AN INDEPENDENT MEASUREMENT OF THE TOTAL ACTIVE $^8\text{B}$ SOLAR NEUTRINO FLUX USING AN ARRAY OF $^3\text{He}$ PROPORTIONAL COUNTERS AT THE SUDBURY NEUTRINO OBSERVATORY

B. Aharmim, S.N. Ahmed, J.F. Amsbaugh, A.E. Anthony, J. Banar, N. Barros, E.W. Beier, A. Bellerive, B. Beltran, M. Bergevin, S.D. Biller, K. Boudjemline, M.G. Boulay, T.J. Bowles, M.C. Browne, T.V. Bullard, T.H. Burritt, B. Cai, Y.D. Chan, D. Chauhan, M. Chen, B.T. Cleveland, G.A. Cox-Mobrand, C.A. Currat, X. Dai, H. Deng, J. Detwiler, M. DiMarco, P.J. Doe, G. Doucas, P.-L. Drouin, C.A. Duba, F.A. Duncan, M. Dunford, E.D. Earle, S.R. Elliott, H.C. Evans, G.T. Ewan, J. Farine, H. Fergani, F. Fleurot, R.J. Ford, J.A. Formaggio, M.M. Fowler, N. Gagnon, J.V. Germani, A. Goldschmidt, J.T.M. Goon, K. Graham, E. Guillian, S. Habib, R.L. Hahn, A.L. Hallin, E.D. Hallman, A.A. Hamian, G.C. Harper, P.J. Harvey, R. Hazama, K.M. Heeger, W.J. Heintzelman, J. Heise, R.L. Helmer, R. Henning, A. Hime, C. Howard, M.A. Howe, M. Huang, P. Jagam, B. Jamieson, N.A. Jelley, K.J. Keeter, J.R. Klein, L.L. Kormos, M. Kos, A. Kruger, C. Kraus, C.B. Krauss, T. Kutter, C.C.M. Kyba, R. Lange, J. Law, I.T. Lawson, K.T. Lesko, J.R. Leslie, J.C. Loach, R. MacLellan, S. Majerus, H.B. Mak, J. Maneira, R. Martin, K. McBryde, N. McCauley, A.B. McDonald, S. McGee, C. Mifflin, G.G. Miller, M.L. Miller, B. Monreal, J. Monroe, B. Morissette, A. Myers, B.G. Nickel, A.J. Noble, N.S. Oblath, H.M. O'Keefe, R.W. Ollerhead, G.D. Orebi Gann, S.M. Oser, R.A. Ott, S.J.M. Peeters, A.W.P. Poon, G. Prior, S.D. Reitzner, K. Rielage, B.C. Robertson, R.G.H. Robertson, E. Rollin, M.H. Schwendener, J.A. Secrest, S.R. Seibert, O. Simard, J.J. Simpson, L. Sinclair, P. Skensved, M.W.E. Smith, T.D. Steiger, L.C. Stonehill, G. Tevis, P.M. Thornewell, N. Tolich, T. Tsui, C.D. Tunnell, T. Van Wechel, R. Van Berg, B.A. VanDevender, C.J. Virtue, T.J. Walker, B.L. Wall, D. Waller, H. Wan Chan Tseung, J. Wendland, N. West, J.B. Wilhelmy, J.F. Wilkerson, J.R. Wilson, J.M. Wouters, A. Wright, M. Yeh, F. Zhang, K. Zuber, arxiv:0806.0989, Phys. Rev. Lett. 101, 111301 (2008).

#### 43) THE SNO+ EXPERIMENT

SNO+ Collaboration (Mark C. Chen for the collaboration).

34th International Conference on High Energy Physics (ICHEP 2008), Philadelphia, Pennsylvania, arXiv:0810.3694 [hep-ex]

44) A SEARCH FOR NEUTRINOS FROM THE SOLAR HEP REACTION AND THE DIFFUSE SUPERNOVA BACKGROUND WITH THE SUDBURY NEUTRINO OBSERVATORY.

B. Aharmim, S.N. Ahmed, A.E. Anthony, E.W. Beier, A. Bellerive, M. Bergevin, S.D. Biller, M.G. Boulay, Y.D. Chan, M. Chen, X. Chen, B.T. Cleveland, G.A. Cox, C.A. Currat, X. Dai, F. Dalnoki-Veress, H. Deng, J. Detwiler, M. DiMarco, P.J. Doe, G. Doucas, P.-L. Drouin, F.A. Duncan, M. Dunford, J.A. Dunmore, E.D. Earle, H.C. Evans, G.T. Ewan, J. Farine, H. Fergani, F. Fleurot, R.J. Ford, J.A. Formaggio, N. Gagnon, J.T.M. Goon, K. Graham, E. Guillian, R.L. Hahn, A.L. Hallin, E.D. Hallman, P.J. Harvey, R. Hazama, K.M. Heeger, W.J. Heintzelman, J. Heise, R.L. Helmer, R.J. Hemingway, R. Henning, A. Hime, C. Howard, M.A. Howe, M. Huang, P. Jagam, N.A. Jelley, J.R. Klein, L.L. Kormos, M. Kos, A. Kruger, C. Kraus, C.B. Krauss, T. Kutter, C.C.M. Kyba, H. Labranche, R. Lange, J. Law, I.T. Lawson, K.T. Lesko, J.R. Leslie, J.C. Loach, S. Luoma, R. MacLellan, S. Majerus, H.B. Mak, J. Maneira, A.D. Marino, R. Martin, N. McCauley, A.B. McDonald, S. McGee, C. Miffllin, K.K.S. Miknaitis, M.L. Miller, B. Monreal, B.G. Nickel, A.J. Noble, E.B. Norman, N.S. Oblath, C.E. Okada, H.M. O'Keefe, G.D. Orebi Gann, S.M. Oser, R. Ott, S.J.M. Peeters, A.W.P. Poon, G. Prior, K. Rielage, B.C. Robertson, R.G.H. Robertson, E. Rollin, M.H. Schwendener, J.A. Secrest, S.R. Seibert, O. Simard, C.J. Sims, D. Sinclair, P. Skensved, R.G. Stokstad, L.C. Stonehill, G. Tesic, N. Tolich, T. Tsui, R. Van Berg, R.G. Van de Water, B.A. VanDevender, C.J. Virtue, T.J. Walker, B.L. Wall, D. Waller, H. Wan Chan Tseung, D.L. Wark, J. Wendland, N. West, J.F. Wilkerson, J.R. Wilson, J.M. Wouters, A. Wright, M. Yeh, F. Zhang, K. Zuber, *Astrophysical Journal* 653, 1545 (2006), nucl-ex/0607010 v2

45) MEASUREMENT OF THE  $\nu_e$  AND TOTAL  $^8\text{B}$  SOLAR NEUTRINO FLUXES WITH THE SUDBURY NEUTRINO OBSERVATORY PHASE 1 DATA SET

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