

Ignatius G. Rigor - Curriculum Vitae (Updated May 16, 2008)

[Polar Science Center](#)

[Applied Physics Laboratory](#)

[University of Washington](#)

1013 NE 40th, Seattle, WA 98195

Phone: (206) 685-2571

Fax: (206) 543-3521

Email: ignatius@apl.washington.edu

Work Experience

Mathematician / Research Scientist, 1986 – present.

Polar Science Center, Applied Physics Laboratory

University of Washington, Seattle Washington

Education

Ph.D. in [Atmospheric Sciences](#), 2005

University of Washington, Seattle, Washington

Dissertation: Interdecadal Variations in Arctic Sea Ice

Advisor: John M. Wallace

M.S. in [Atmospheric Sciences](#), 2001

University of Washington, Seattle, Washington

Thesis: On the Response of Sea Ice to the Arctic Oscillation

Advisor: John M. Wallace

B.S. in [Cell and Molecular Biology](#), 1986

University of Washington, Seattle, Washington

Professional Activities

- Coordinator of the [International Arctic Buoy Programme](#), 1998–present.
- Member of [Alaska Ocean Observing System – Sea Ice Working Group](#), 2006–present.
- Member of NASA and NSF Proposal Review Panels.
- Contributing author of the Intergovernmental Panel on Climate Change – Fourth Assessment Report.
- Contributing author of the National Oceanic and Atmospheric Administration – Annual Reports on the State of the Ocean and the Observing System for Climate, 2004 and 2005.
- Member of the American Meteorological Society and American Geophysical Union.
- Reviewer for various science journals.

Outreach

- Press Interviews and News:
 - Secretary Kempthorne: [Press Conference On Polar Bear Listing](#), May 14, 2008.
 - Revkin, Andy: [Skeptics on Human Climate Impact Seize on Cold Spell](#). New York Times, March 2, 2008.
 - Arnold, Elizabeth: [How Serious is Climate Change in Alaska?](#), National Public Radio, Feb. 14, 2008.
 - Kizzia, Tom: [Polar ice may break 2007 record](#), Anchorage Daily News, Feb. 12, 2008.
 - Tracy, John: [The front lines of climate change](#), KTUU 2 News (NBC Anchorage), Feb. 11, 2008.
 - Revkin, Andy: [Arctic Melt Unnerves the Experts](#). New York Times, October 1, 2007.
 - Glenn Farley, [Polarbears Losing Their Habitat](#), KING 5 News, September 7, 2007.

- Revkin, Andy: [Analysts See 'Simply Incredible' Shrinking of Floating Ice in the Arctic](#). New York Times, August 10, 2007.
- Miller, Bill: [Misquoted scientists cry foul over polar bear editorial](#). DeSmogBlog.com, January 3, 2007. (*Follow up on misquote in an editorial in The Vancouver Province.*)
- The Vancouver Province, Editorial: [New polar-bear scare is a classic case of blinkered thinking](#). December 29, 2006. (*This was a misquote which the Miller, 2007 article above followed up.*)
- Erickson, Jim: Scientists: [Arctic sea ice tells of warming](#). Rocky Mountain News, September 14, 2006.
- O'Hanlon, Larry: [Arctic Ice Melt Close to Record Low](#). Discovery News, September 6, 2006.
- Erickson, Jim: [Team's ice work heats up](#). Rocky Mountain News, September 5, 2006.
- NSIDC News: Arctic Sea Ice News 2006, http://nsidc.org/news/press/2006_seaiceminimum/20060816_arcticseaicenews.html, 2006.
- Talbott, Chris: [Arctic ice pack losing ground](#). Fairbanks Daily News-Miner. April 10, 2006
- Revkin, Andy: [In a Melting Trend, Less Arctic Ice to Go Around](#). New York Times, September 29, 2005.
- Revkin, Andy: [Arctic Ice Cap Shrank This Summer, Experts Say](#). New York Times, September 28, 2005.
- Kerr, Richard A., [Scary Arctic Ice Loss? Blame the Wind](#), SCIENCE Magazine, v. 307, 5707, 203a, 2005.
- Cowen, Robert C.: [In melting Arctic, warming is now](#). Christian Science Monitor, January 6, 2005.
- [Winds, Ice Motion Root Cause Of Decline In Sea Ice, Not Warmer Temperatures](#). Science Daily, December 29, 2004.
- Holland, J.S., Breaking the Ice, v. 205, iss. 1, p 100–111, National Geographic, 2004. [\[Article\]](#) [\[Map of Arctic Forecast\]](#)
- Encyclopedia of the Arctic, Routledge, New York, 2004.
 - Arctic Meteorological Stations, pp 1282–1283.
 - Laptev Sea, pp 1165–1166.
 - Sea Ice, pp 1855–1858.
- Invited speaker for European Consortium for Ocean Research Drilling (ECORD) and International Ocean Drilling Program (IODP) Summer School on Paleoceanography and Topical Symposium on North Atlantic and Arctic Climate Variability, August 2007.
- Instructor for Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP, <http://depts.washington.edu/gearup/>), Summer 2007.
- Member of Ocean Research College Academy (ORCA, <http://www.everettcc.edu/programs/mathsci/orca/>) Global Warming Panel, December 2006.
- Mentors students for the Alliance for Learning and Vision for Underrepresented Americans (ALVA) program at the UW, which provides an intensive work-study summer experience for incoming freshmen typically conducted at a high tech firm or university research facility.
- Gives presentations on weather, Arctic and global climate to K-12 students, boy scouts, etc.
- Hosts tours of the Department of Atmospheric Science and the Applied Physics Lab at the University of Washington for K-12 students.
- Wrote and administered the “weather” exam for the Washington State Science Olympiad 2002.
- Outreach Coordinator for the UW Department of Atmospheric Science from 1999 – 2000.

Publications

- Richter-Menge, J., J. Overland, A. Proshutinsky, V. Romanovsky, L. Bengtsson, L. Brigham, M. Dyurgerov, J.C. Gascard, S. Gerland, R. Graversen, C. Haas, M. Karcher, P. Kuhry, J. Maslanik, H. Melling, W. Maslowski, J. Morison, D. Perovich, R. Przybylak, V. Rachold, **I.G. Rigor**, A. Shiklomanov, J. Stroeve, D. Walker, and J. Walsh, *State of the Arctic Report*, submitted, 2007.
- Nghiem, S.V., **I.G. Rigor**, D.K. Perovich, P. Clemente-Colón, J. Richter-Menge, J. W. Weatherly, and G. Neumann, [Rapid reduction of Arctic perennial sea ice](#), *Geophys. Res. Lett.*, iv. 24, L19504, doi:10.1029/2007GL031128, 2007.
- Alkire, M.B, K.K. Falkner, **I. Rigor**, M. Steele, and , J. Morison, [The return of Pacific waters to the upper layers of the central Arctic Ocean](#), *Deep Sea Research*, v. 54, pp. 1509 – 1529, 2007.
- Sasaki, Y.N. Y. Katagiri, S. Minobe, and **I.G. Rigor**, Autumn atmospheric preconditioning for interannual variability of wintertime sea-ice in the Okhotsk Sea, *J. Oceanography*, v. 63, n. 2, pp. 255-265, 2007.
- Intergovernmental Panel on Climate Change (IPCC) Working Group I, [Contribution to the Fourth Assessment Report of the IPCC - Climate Change 2007: The Physical Science Basis. \(Rigor, I.G. is a Contributing Author\).](#)
- Richter-Menge, J., J. Overland, A. Proshutinsky, V. Romanovsky, L. Bengtsson, L. Brigham, M. Dyurgerov, J.C. Gascard, S. Gerland, R. Graversen, C. Haas, M. Karcher, P. Kuhry, J. Maslanik, H. Melling, W. Maslowski, J. Morison, D. Perovich, R. Przybylak, V. Rachold, **I.G. Rigor**, A. Shiklomanov, J. Stroeve, D. Walker, and J. Walsh, [State of the Arctic. NOAA OAR Special Report](#), NOAA/OAR/PMEL, Seattle, WA, 2006, 36 pp.
- Richter-Menge, J.A., and many other including **I.G. Rigor**, *State of the Arctic. FY 2005 NOAA Annual Report: The State of the Ocean and the Ocean Observing System For Climate*, ed. Diane M. Stanitski, NOAA Office of Climate Observation, Silver Spring, MD, 20910. USA, 2006.
- Richter-Menge, J.A., D.K. Perovich, B.C. Elder, K. Claffey, **I.Rigor**, M. Ortmeyer, [Ice Mass Balance Buoys: A tool for measuring and attributing changes in the thickness of Arctic sea ice cover](#), *Annals of Glaciology*, v. 44, 2006.
- Serreze, M.C. and **I.G. Rigor**, The cryosphere and climate change: perspectives on the Arctic's shrinking sea ice cover., *Glacier Science and Environmental Change*, ed. P. Knight, Blackwell Publishing, Ltd, Oxford, August 2006.
- Eicken, H., R. Gradinger, A. Graves, A. Mahoney, **I. Rigor**, & H. Melling, [Sediment transport by sea ice in the Chukchi and Beaufort Seas: Increasing importance due to changing ice conditions?](#), *Deep Sea Research*, 2005.
- Rigor, I.G.**, J. Richter-Menge, C. Lee, *Arctic Sea Ice and Ocean Observations*, Arctic Research of the United States, v. 19, 2005.
- Rigor, I.G.**, Interdecadal Variations in Arctic Sea Ice, *Ph. D. Dissertation*, Univ. of Washington, Seattle, pp. 100, 2005.
- Rigor, I.G.**, and Jackie Richter-Menge, Sea Ice Extent and Thickness. *FY 2004 NOAA Annual Report: The State of the Ocean and the Ocean Observing System For Climate*, ed. Diane M. Stanitski, NOAA Office of Climate Observation, Silver Spring, MD, 20910. USA, pp. 67-74, 2005.
- Pfirman, S., W.F. Haxby, R. Colony, and **I. Rigor**, Variability in Arctic Sea Ice Drift, *Geophys. Res. Lett.*, v. 31, doi:10.1029/2004GL020063, 2004. [Citations: 3]
- Rigor, I.G.** and J.M. Wallace, [Variations in the Age of Sea Ice and Summer Sea Ice Extent](#), *Geophys. Res. Lett.*, v. 31, doi:10.1029/2004GL019492, 2004. [Citations: 17]
- Rigor, I.G.**, Arctic Meteorological Stations, *Encyclopedia of the Arctic*, Routledge, New York, 2004.

- Rigor, I.G.**, Laptev Sea, *Encyclopedia of the Arctic*, Routledge, New York, 2004.
- Rigor, I.G.**, Sea Ice, *Encyclopedia of the Arctic*, Routledge, New York, 2004.
- Steele, M.A., J. Morison, W. Ermold, **I.G. Rigor**, M. Ortmeier, and K. Shimada, [The Circulation of Summer Pacific Halocline Water in the Arctic Ocean](#), *J. Geophys. Res.*, v. 109, c02027 doi:10.1029/2003JC002009, 2004. [Citations: 13]
- Rigor, I.G.**, J.M. Wallace, and R.L. Colony, [Response of Sea Ice to the Arctic Oscillation](#), *J. Climate*, v. 15, no. 18, pp. 2648 - 2668, 2002. [Citations: 84]
- Bacon, S., G. Reverdin, **I.G. Rigor**, and H. M. Snaith, [A Freshwater Jet on the East Greenland Shelf](#), *J. Geophys. Res.*, v. 107, no. C7, 2002. [Citations: 7]
- Rigor, I.G.**, R.L. Colony, and S. Martin, [Variations in Surface Air Temperature in the Arctic from 1979-1997](#), *J. Climate*, v. 13, no. 5, pp. 896 - 914, 2000. [Citations: 104]
- Jones, P.D., M. New, D.E. Parker, S. Martin, and **I.G. Rigor**, [Surface air temperature and its changes over the past 150 years](#), *Rev. Geophys.* Vol. 37, No. 2, p. 173 - 200, 1999. [Citations: 348]
- Warren, S.G., **I.G. Rigor**, N. Untersteiner, V. F. Radionov, N. N. Bryazgin, Y. I. Aleksandrov, and R. Colony, [Snow Depth on Arctic Sea Ice](#), *J. Climate*, v. 12, no. 6, pp. 1814–1829, 1999. [Citations: 19]
- Landa, E., E. Reimnitz, D. Beals, J. Pochkowski, and **I.G. Rigor**, Transport of ¹³⁷Cs and ^{239,240}Pu by Ice Rafted Debris in the Arctic Ocean, *Arctic*, v. 51, no. 1, pp. 27-39, 1998. [Citations: 24]
- Rigor, I.G.**, and R. Colony, [Sea Ice Production in the Laptev Sea](#), *Sci. Total Environ.*, vol. 202, pp. 89-110, 1997. [Citations: 17]
- Pfirman, S.L., J.W. Kögeler, and **I.G. Rigor**, [Potential Shortcuts for Transport of Contaminants from the Kara Sea](#), *Sci. Total Environ.*, vol. 202, pp. 111-122, 1997. [Citations: 16]
- Pfirman, S.L., R. Colony, D. Nürnberg, H. Eicken, and **I.G. Rigor**, [Reconstructing the Origin and Trajectory of Drifting Arctic Sea Ice](#), *J. Geophys. Res.*, vol. 102 no.6 pp. 12575-12586, 1997. [Citations: 55]
- Pfirman, S.L., R. Colony, D. Nürnberg, H. Eicken, and **I.G. Rigor**, [Correction to "Reconstructing the Origin and Trajectory of Drifting Arctic Sea Ice,"](#) *J. Geophys. Res.*, vol. 102 no.c10, p. 23239, 1997.

Conference Proceedings & Presentations

- Rigor, I.G. (INVITED)**, Sea ice changes in the Arctic, Joined SCAR-CliC-IPCM-IASC Workshop on Recent High Latitude Climate Change, Seattle, WA, October 2007.
- Rigor, I.G. (INVITED)**, Resolving some discrepancies in our Arctic climate records, Integrated Ocean Drilling Program (IODP) Topical Symposium: North Atlantic and Arctic Climate Variability, Bremen, Germany, August 2007.
- Alkire, M.B, K.K. Falkner, J. Morison, **I. Rigor**, and M. Steele, The Return of Pacific Waters to the Upper Layers of the Central Arctic Ocean, *Eos Trans. AGU*, 87(52) Fall Meet. Suppl., Dec. 2006.
- Darby, D.A., M. Jakobsson, **I. Rigor**, New Insights in Sea Ice Drift Based on Dirty Ice Samples Collected in 2005 by the HOTRAX Expedition, *Eos Trans. AGU*, 87(52) Fall Meet. Suppl., Dec. 2006.
- Moritz, R.E. and **I. Rigor**, Research Applications of Data from Arctic Ocean Drifting Platforms: The Arctic Buoy Program and the Environmental Working Group, *Eos Trans. AGU*, 87(52) Fall Meet. Suppl., Dec. 2006.
- Rigor, I.G. (INVITED)**, Sea Ice, NOAA Climate Observation Program, 4th Annual System Review, Silver Spring, MD, May 2006.
- Rigor, I.G. (INVITED)**, Interdecadal Variations in Arctic Climate and Sea Ice, Alaska Fisheries Science Center (AFSC/NOAA) Seminar, Seattle, WA, Feb. 2006.

- Rigor, I.G. (INVITED)**, Interdecadal Variations in Arctic Sea Ice, Woods Hole Oceanographic Institute (WHOI) Physical Oceanography Seminar, Woods Hole, MA, Feb. 2006.
- Rigor, I.G.**, M. Hanna, M. Ortmeyer, An Outlook for Summer sea ice north of Alaska, Proc. Marine Sciences of Alaska Symposium, Anchorage, AK, Jan. 2006.
- Rigor, I.G. (INVITED)**, H. Stern, and A. Schweiger, Arctic Surface Air Temperature for the Past 100 years: Analysis and Reconstruction of an Integrated Data Set, Proc. MARCDAT-II Meeting, Exeter, UK, October, 2005.
- Rigor, I.G.**, M. Hanna, and M. Ortmeyer, International Arctic Buoy Programme, JCOMM-II Scientific Conference, Halifax, Canada, September 2005.
- Goos, T., E.T. Hudson, and **I. G. Rigor**, Observed changes at the surface of the Arctic Ocean, and the application of these observations towards predicting Arctic sea ice conditions, JCOMM-II Scientific Conference, Halifax, Canada, September 2005.
- Rigor, I.G. (INVITED)**, Sea Ice and Arctic Climate Change, Polar Bear Specialists Group Meeting, June 2005.
- Rigor, I.G. (INVITED)**, Forecasting the Condition of Sea Ice on Weekly to Seasonal Time Scales, Ice University Workshop, Canadian Ice Service, Ottawa, Canada, May 2005.
- Richter-Menge, J.A., **I.G. Rigor**, and J. Calder, NOAA Arctic Ocean Observing System: Ice Thickness Component, NOAA Ocean Climate Observing System Review, Silver Spring, MD, Apr. 2005.
- Rigor, I.G.**, and M. Hanna, Forecasting the Condition of Sea Ice on Weekly to Seasonal Time Scales, *NOAA Ocean Climate Observing System Review*, Silver Spring, MD, Apr. 2005.
- Rigor, I.G.**, J.A. Richter-Menge, and J. Calder, Arctic and Global Climate Change, *NOAA Ocean Climate Observing System Review*, Silver Spring, MD, Apr. 2005.
- Rigor, I.G. (INVITED)**, Sea Ice, *Pacific Arctic Group Symposium on Circulation and Ecology of the Pacific Arctic Shelves and Connection to Deep Basins*, Arctic Science Summit Week, Kunming, China, Apr. 2005.
- Rigor, I.G. (INVITED Keynote Speaker)**, Explaining the recent minima in Arctic sea ice extent - pieces of the puzzle, *Gordon Research Conference on Polar Marine Science*, Ventura, CA, Mar. 2005.
- Rigor, I.G. (INVITED)**, *Arctic Climate Science Priorities Workshop*, NOAA Climate Program Office, Silver Spring, MD, Feb. 2005.
- Rigor, I.G. (INVITED)**, Explaining the Recent Decreases in Sea Ice on the Arctic Ocean, *Eos Trans. AGU*, Fall Meet. Suppl., Dec. 2004.
- Rigor, I.G.**, J.A. Richter-Menge, and J. Calder, Recent Progress Towards Establishing an Arctic Ocean Observing System - A NOAA Contribution to the Study of Environmental Arctic Change (SEARCH), *Eos Trans. AGU*, Fall Meet. Suppl., Dec. 2004.
- Calder, J., J. Overland, T. Uttal, J.A. Richter-Menge, **I.G. Rigor**, and K. Crane, National Oceanic and Atmospheric Administration (NOAA) Arctic Climate Change Studies: A Contribution to IPY, *Eos Trans. AGU*, Fall Meet. Suppl., Dec. 2004.
- Hanna, M, **I.G. Rigor**, M. Ortmeyer, and C. Haas, The International Arctic Buoy Programme (IABP) – An International Polar Year Every Year, *Eos Trans. AGU*, Fall Meet. Suppl., Dec. 2004.
- Richter-Menge J. A., D. K. Perovich, B. C. Elder, **I. Rigor**, M. Ortmeyer, An autonomous network measuring changes in the thickness of the Arctic sea ice cover, *Eos Trans. AGU*, Fall Meet. Suppl., Dec. 2004.
- Ortmeyer, M., and **I.G. Rigor**, Observed Changes at the Surface of the Arctic Ocean, *Eos Trans. AGU*, Fall Meet. Suppl., Dec. 2004.
- Rigor, I.G.**, J.A. Richter-Menge, and J. Calder, Recent Progress Towards Establishing an Arctic Ocean Observing System, Proc. Arctic Climate Impacts Assessment (ACIA) International Symposium on Climate Change in the Arctic, Reykjavik, Nov. 2004.

- Rigor, I.G.**, and J.M. Wallace, Variations in Arctic Sea Ice, Proc. Arctic Climate Impacts Assessment (ACIA) International Symposium on Climate Change in the Arctic, Reykjavik, Nov. 2004.
- Calder, J., T. Uttal, J. Overland, J. Richter-Menge, **Rigor, I.G.**, and K. Crane, The NOAA Arctic Climate Change Studies: A U.S. Contribution to Arctic Council Responses to the ACIA, Proc. Arctic Climate Impacts Assessment (ACIA) International Symposium on Climate Change in the Arctic, Reykjavik, Nov. 2004.
- Rigor, I.G. (INVITED)**, and J. M. Wallace, Variations in Arctic Sea Ice, Proc. ARCUS Workshop, , Washington, D.C., May 2004.
- Rigor, I.G.**, J.A. Richter-Menge, and J. Calder, Recent Progress Towards Establishing an Arctic Ocean Observing System, Proc. NOAA Ocean Climate Observing System Review, Silver Spring, MD, Apr. 2004.
- Rigor, I.G.**, and Jamie Morison, Climate Observing System for Arctic Ocean, Proc. Marine Science in Alaska: 2004 Symposium, Anchorage, Jan. 2004.
- Rigor, I.G. (INVITED)**, Variations in the Age of Sea Ice and Summer Sea Ice Extent, Proc. Lamont Mini-conference, Central Arctic: Battleground of Natural and Man-Made Climate Forcing, Lamont Doherty Earth Observatory of Columbia University, New York, Jan. 2004.
- Rigor, I.G. (INVITED)**, and J. M. Wallace, Predicting the Extent of Sea Ice in the Arctic, *Eos Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract OS11B-06, Dec. 2003.
- Rigor, I.G.**, and M. Ortmeyer, The International Arctic Buoy Programme (IABP), *Proc. Eos Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract C41C-0987, Dec. 2003.
- Perovich, D.K., J.A. Richter-Menge, **I.G. Rigor**, C.L. Parkinson, J.W. Weatherly, S.V. Nghiem, A. Proshutinsky, and J. Overland, Assessing, understanding, and conveying the state of the Arctic sea ice cover, *Eos Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract C41C-0990, Dec. 2003.
- Rigor, I.G.**, and J.M. Wallace, Observed Variations in Arctic Sea Ice Extent, *Proc. ACSYS/CliC Final Meeting*, St. Petersburg, Nov. 2003.
- Rigor, I.G.**, E.T. Hudson, T. Løyning, and S. Priamikov, The International Arctic Buoy Programme (IABP), *Proc. ACSYS/CliC Final Meeting*, St. Petersburg, Nov. 2003.
- Rigor, I.G.**, J. M. Wallace, and R. Colony, Arctic Sea Ice Motion in Response to the Arctic Oscillation, *Proc. Second Wadati Conference on Global Change and Polar Climate*, Tokyo, Japan, Mar. 2001.
- Colony R., and **I.G. Rigor**, Annual Cycle of Surface Pressure, Temperature and Ice Motion in the Arctic Basin, *Proc. Second Wadati Conference on Global Change and Polar Climate*, Tokyo, Japan, Mar. 2001.
- Rigor, I.G.**, J. M. Wallace, R. Colony, and S. Martin, Variations in Temperature in the Arctic, *Proc. Second Wadati Conference on Global Change and Polar Climate*, Tokyo, Japan, Mar. 2001.
- Pfirman, S., W. Haxby, H. Eicken, D. Darby, J. Bischof, M.O. Jeffries, **I. Rigor**, P. Schlosser, R. Mortlock, Sediment-laden Arctic Sea Ice: Variations in Sources and Fate, *Proc. AGU 2000 Fall Meeting*, San Francisco, CA, Dec. 2000.
- Pfirman, S., W. F. Haxby, and **I. Rigor**, Annual to Millennial Variations in the Origin and Fate of Sediment-Laden Sea Ice, The Second CAPE Synthesis Workshop, Kirkjubaejarklaustur, Iceland, Jun. 2000.
- Rigor, I.**, Variations in surface air temperature over the Arctic Ocean from 1979 - 1997, *Proc. AGU 1998 Fall Meeting*, San Francisco, CA, Dec. 1998.
- Morison, J. H., D. W. Thompson, **I. Rigor**, M. G. McPhee, Recent Developments in the Study of the Arctic Change, *Proc. AGU 1998 Fall Meeting*, San Francisco, CA, Dec. 1998.

- Pfirman, S. L., H. Eicken, R. Colony, **I. Rigor**, P. Schlosser, R. Mortlock, D. Bauch, R. Fairbanks, Drifting Sea Ice as an Environmental Archive, *Proc. AGU 1998 Fall Meeting*, San Francisco, CA, Dec. 1998.
- Warren, S.G., **I. Rigor**, N. Untersteiner, V. F. Radionov, N. N. Briazgin, Y. I. Aleksandrov, and R. Colony, Snow Cover on Arctic Sea Ice, *Proc. IAMAS Symposium IP16, "Interfacial Processes in Ice-Covered Ocean,"* Dallas, Texas, Jan. 1998.
- Dethleff D., G. Kohlmann, D. Nürnberg, I. H. Harms, M. Karcher, H. Nies, **I. Rigor**, Drift of Sediment-Laden Arctic Sea Ice: Preliminary Results From 1997 ARKXIII/2 RV "Polarstern" Cruise and Numerical Model Studies, *Proc. AGU 1997 Fall Meeting*, San Francisco, CA, Dec. 1997.
- Rigor, I.**, R. Colony, S. Martin, and E. A. Muñoz, Statistics of Surface Air Temperature Observations in the Arctic Basin, *Proc. WCRP Conference on Polar Processes and Global Climate Change*, Orcas Island, WA, Nov. 1997.
- Warren, S.G., **I. Rigor**, N. Untersteiner, V. F. Radionov, N. N. Briazgin, Y. I. Aleksandrov, and R. Colony, Snow Cover on Arctic Sea Ice, *Proc. IAMAS Symposium IP16, "Interfacial Processes in Ice-Covered Ocean,"* Melbourne, Australia, July 1997.
- Pfirman, S., D. Gregor, **I. Rigor**, and R. M. Koerner, Role of Sea Ice in Contaminant Fate, *Proc. AMAP International Symposium on Environmental Pollution of the Arctic*, Tromso, Norway, June 1997.
- Rigor, I.**, and R. Colony, Sea Ice Production and Transport of Pollutants from the Russian Marginal Seas, *Proc. American Geophysical Union 1996 Fall Meeting*, San Francisco, CA, Dec. 1996.
- Reimnitz, E., D.A. Meese, A. J. Gow, S.L. Pfirman, and **I. Rigor**, Ice-Borne Sediments From the Russian Shelves, *Proc. American Geophysical Union 1996 Fall Meeting*, San Francisco, CA, Dec. 1996.
- Landa, E., E. Reimnitz, D. Beals, J. Pochkowski, W. Winn, and **I. Rigor**, Transport of Cs-137 and Pu-239, 240 with Ice Rafted Debris in the Arctic Ocean, *Proc. American Geophysical Union 1996 Fall Meeting*, San Francisco, CA, Dec. 1996.
- Tucker, W.B., D. A. Meese, E. Reimnitz, R. Colony, and **I. Rigor**, Incorporation and Transport of Contaminated Sediment by Sea Ice: A Case Study, *Proc. of the Arctic Nuclear Waste Assessment Program Workshop*, Woods Hole, MA, May 1996.
- Rigor, I.**, R. Colony, and J. Morison, Sea Ice Motion in the Marginal Siberian Seas, *Arctic Nuclear Waste Assessment Program Workshop*, Snowbird, UT, May 1996.
- Rigor, I.**, and R. Colony, Sea Ice Transport of Pollutants in the Laptev Sea, *Proc. International Conference on Radioactivity in the Arctic*, Oslo, Norway, Aug. 1995.
- Rigor, I.**, Russian Historical Ice Charts and Data Set, 1967 - 1990, *Proceedings of the ONR/NRL Workshop on Modeling the Dispersion of Nuclear Contaminants in the Arctic Seas*, Monterey, CA, Oct. 1994.
- Rigor, I.**, and R. Colony, Covariance Between Surface Wind and Geostrophic Wind Over Arctic Ocean, *Proc. Third Conference on Polar Meteorology and Oceanography*, American Meteorological Society, Portland, OR, Sep. 1992.
- Rigor, I.**, and R. Colony, Pack Ice Motion and Surface Pressure Fields in the Arctic Basin, *Proc. American Geophysical Union Fall Meeting*, San Francisco, CA, Dec. 1991.
- Rigor, I.** and R. Colony, Monthly averaged surface temperature fields for the arctic basin, *Ocean Sciences Meeting*, New Orleans, LA, Feb. 1990.

Technical Memorandums

- Ortmeyer, M., and **I. Rigor**, International Arctic Buoy Program 2003 Data Report, *APL-UW TM 2-04, Applied Physics Laboratory, University of Washington, 2004.*

- Rigor, I.**, and M. Ortmeyer, International Arctic Buoy Program 2002 Data Report, *APL-UW TM 5-03, Applied Physics Laboratory, University of Washington, 2003.*
- Rigor, I.**, and M. Ortmeyer, International Arctic Buoy Program 2001 Data Report, *APL-UW TM 6-02, Applied Physics Laboratory, University of Washington, 2002.*
- Rigor, I.**, and M. Ortmeyer, International Arctic Buoy Program 2000 Data Report, *APL-UW TM 4-01, Applied Physics Laboratory, University of Washington, 2001.*
- Rigor, I.**, and M. Ortmeyer, International Arctic Buoy Program 1999 Data Report, *APL-UW TM 6-00, Applied Physics Laboratory, University of Washington, 2000.*
- Rigor, I.**, and M. Ortmeyer, International Arctic Buoy Program 1998 Data Report, *APL-UW TM 3-00, Applied Physics Laboratory, University of Washington, 2000.*
- Rigor, I.**, and M. Ortmeyer, International Arctic Buoy Program 1997 Data Report, *APL-UW TM 5-99, Applied Physics Laboratory, University of Washington, 1999.*
- Rigor, I.**, and M. Ortmeyer, Observations of Sea Level Pressure, Surface Air Temperature and Ice Motion from the International Arctic Buoy Programme, *APL-UW TM 2-99, Applied Physics Laboratory, University of Washington, 1999.*
- Rigor, I.**, and A. Heiberg, International Arctic Buoy Program 1996 Data Report, *APL-UW TM 5-97, Applied Physics Laboratory, University of Washington, 1997.*
- Rigor, I.**, and A. Heiberg, International Arctic Buoy Program Data Report 1995 Data Report, *APL-UW TM 4-97, 1997.*
- Rigor, I.**, and A. Heiberg, International Arctic Buoy Program Data Report 1994 Data Report, *APL-UW TM 6-95, 1995.*
- Colony, R., and **I. Rigor**, International Arctic Buoy Program Data Report 1993 Data Report, *APL-UW TM 4-95, 1995.*
- Colony, R., and **I. Rigor**, International Arctic Buoy Program Data Report 1992 Data Report, *APL-UW TM 29-93, 1993.*
- Colony, R. and **I. Rigor**, International Arctic Buoy Program Data Report 1991 Data Report, *APL-UW TM 28-93, 1993.*
- Colony, R., I Appel, and **I. Rigor**, Surface Air Temperature in the Arctic Basin, *APL-UW TM 1-92, 1992.*
- Colony, R., and **I. Rigor**, Surface Air Pressure and Observed Ice Motion in the Arctic Basin, 1953 - 1972, *APL-UW TM 14-91, 1991.*
- Colony, R., and **I. Rigor**, Arctic Ocean Buoy Program (Arctic Ocean Buoy Program) 1990 Data Report, *APL-UW TM 10-91, 1991.*
- Colony, R., and **I. Rigor**, Arctic Ocean Buoy Program 1989 Data Report, *APL-UW TM 9-91, 1991.*
- Colony, R., and **I. Rigor**, Arctic Ocean Buoy Program 1988 Data Report, *APL-UW TM 8-91, 1991.*
- Colony, R., and **I. Rigor**, Arctic Ocean Buoy Program 1987 Data Report, *APL-UW TM 7-91, 1991.*
- Colony, R., **I. Rigor**, and Kay Runciman-Moore, A Collection of Sea Ice Trajectories in the Arctic Ocean, *APL-UW TM 4-90, 1990.*
- Colony, R., and **I. Rigor**, Arctic Ocean Buoy Program 1986 Data Report, *APL-UW TM 6-89, 1989.*