

Education

Ph.D., Oceanography
University of Alaska Fairbanks, 2010

Bachelor of Arts, Physics
Reed College, 1999

Current Positions

- June 2014-present, Director, Alaska Hydrokinetic Energy Research Center
- Sept. 2012-present, Research Assistant Professor, University of Alaska Fairbanks

Previous Positions

- Sept. 2013-June 2014, Assistant Director, Alaska Hydrokinetic Energy Research Center
- June 2011-Sept. 2012, Postdoctoral Investigator, Woods Hole Oceanographic Institution
- June 2010-June 2011, Guest Investigator, WHOI
- Nov. 2010-June 2011, Postdoctoral Fellow, UAF Institute of Marine Science
- Sept. 2001-Nov. 2010, Graduate Research Assistant, UAF Institute of Marine Science
- Aug. 2000-Aug. 2001, Research Technician, UAF Institute of Northern Engineering, Water and Environmental Research Center

Affiliations

- Member, American Geophysical Union
- Member, American Meteorological Society

Peer Reviewed Publications

Kasper, J., Duvoy, P., Johnson, J.B., A gridding procedure for analyzing turbulent stresses for in-river hydrokinetic energy resource assessments, *in prep.*

Kasper, J., Moon, S., Upwelling in the presence of landfast ice, *in prep.*

Kasper, J., R. Pickart, T.J. Weingartner and A. Plueddemann, Differences in upwelling response across the Beaufort shelf and slope in the presence of ice, *in prep.*

Kasper, J., and T.J. Weingartner, The spreading of a buoyant river plume beneath a landfast ice cover, *in review.*

Kasper, J., and T.J. Weingartner, 2014, The effect of landfast ice on a lateral inflow to a shelf sea, *in-review.*

Kasper, J., and T.J. Weingartner, 2012, Modeling winter circulation under landfast ice: The interaction of winds with landfast ice, *J. of Geophys. Res.* 117, C04006, pp 14, doi:10.1029/2011JC007649

Funded Projects

Development and testing of a low-cost satellite-tracked ice drifter for Arctic Alaska, *UA Coastal Marine Institute*, PI.

The effect of sea ice mobility on shelf basin exchange in the Alaskan Beaufort Sea, *North Pacific Research Board*, PI

Surface and subsurface debris characterization and mitigation strategies and their impact on the operation of hydrokinetic devices on the Tanana River at Nenana, *Alaska Energy Authority*, co-I

UAF support for “Arctic Nearshore Impact Monitoring in the Development Area (ANIMIDA III), *Bureau of Ocean Energy Management*, co-I

Modeling in support of the Yakutat Alaska wave energy deployment, *Alaska Energy Authority*, PI
Yakutat wave energy resource Assessment, *City and Borough of Yakutat*, PI
Field Research Sonar System to Characterize River and Marine Environments for study and analysis of energy production impacts, fisheries habitat and, and geologic processes, *M.J. Murdock Charitable Trust*, co-I.

Previously awarded grants and proposals

- 2008-2012, Circulation, Cross-shelf exchange, Sea ice, and Marine mammal habitats on the Alaskan Beaufort Shelf, *National Ocean Partnership Program*
- 2006-2010, Idealized Modeling of Circulation Under Landfast Ice, *UA Coastal Marine Institute*
- 2009 Travel Grant, *UAF Graduate Program in Marine Science and Limnology*
- 2004-2005 Graduate Research Fellowship, *UAF Graduate School*
- 2006 Travel Grant, *UAF Graduate School*
- 2003-2004 Modeling the effects of river discharge, windstress and sea ice on Arctic coastal circulation, *Oil Spill Recovery Institute Graduate Research Fellowship*
- 2003-2004 Modeling the effects of river discharge, windstress and sea ice on Arctic coastal circulation, *UA Center for Global Change and Sea Grant*

Non-refereed Papers and Abstracts

Johnson, J.B., Schmid, J., Kasper, J.L., Duvoy, P., Seitz, A.C., Toniolo, H., Protection of In-river Hydrokinetic Power Generating Devices From Surface Debris in Alaskan Rivers, Draft Final Report to the Denali Commission and the Alaska Energy Authority

Johnson, J.B., Schmid, J., Duvoy, P., Kasper, J.L., Kulchitsky, A., Seitz, A.C., 2014 Surface debris characterization, mitigation strategies and their impact on the operation of river energy conversion devices on the Tanana River at Nenana, Preliminary Report to the Alaska Energy Authority

Johnson, J.B., Schmid, J., Duvoy, P., Kasper, J.L., 2014 Strategies to mitigate the effects of woody debris on river energy converter technologies, Marine Energy Technology Symposium

Kasper, J., 2014 Shelfbreak upwelling in the presence of landfast ice, Ocean Sciences Meeting Abstracts

Kasper, J., 2014 Shelfbreak upwelling in the presence of landfast ice, Alaska Marine Science Symposium Abstracts

Kasper, J., Response of the Beaufort shelf and slope to wind forcing for varying ice conditions, 2013, Alaska Marine Science Symposium Abstracts

Kasper, J., Pickart, R., Weingartner, T., 2012 Impact of ice cover on wind-forced exchange in the Alaskan Beaufort Sea, Ocean Sciences Meeting Abstracts.

Kasper, J., Weingartner, T., 2011, The spreading of a buoyant river plume beneath a landfast ice cover, American Meteorological Society 11th Conference on Polar Meteorology and Oceanography Abstract, <http://ams.confex.com/ams/11Polar/webprogram/Paper189246.html>

Kasper, J., Weingartner, T., 2011, The spreading of a buoyant river plume beneath a landfast ice cover, Alaska Marine Science Symposium Abstract, page 115.

Kasper, J., Dec. 2010, Idealized Modeling of Circulation Under Landfast Ice, Ph.D. Thesis, University of Alaska Fairbanks.

Kasper, J., Weingartner, T., 2010, Idealized Process Model Studies of Circulation in the Landfast Ice Zone of the Alaskan Beaufort Sea, Final Report, University of Alaska Coastal Marine Institute Final Report, CMI Contract 1435-01-02-CA-85294.

Weingartner, T., Danielson, S., Kasper, J., Okkonen, S., 2010, Circulation and water property variations in the nearshore Alaskan Beaufort Sea (1999-2007), Final Report, Minerals Management Service Contract M03PC00015.

Kasper, J., Weingartner, T., 2010. Modeling the effects of buoyancy and winds on circulation under landfast ice, Ocean Sciences Meeting Abstracts.

Kasper, J., Weingartner, T., 2009, Modeling Circulation in the Landfast Ice Zone, Alaska Marine Science Symposium Abstract, page 210.

Weingartner, T., Kasper, J., 2008, Idealized process model studies of circulation in the landfast ice zone of the Alaskan Beaufort Sea, University of Alaska Coastal Marine Institute Annual Report No. 15.

Kasper, J., Weingartner, T., 2008, Modeling circulation in the landfast ice zone, Ocean Sciences Meeting Abstracts, page 201.

Weingartner, T., Kasper, J., 2007, Idealized process model studies of circulation in the landfast ice zone of the Alaskan Beaufort Sea, University of Alaska Coastal Marine Institute Annual Report No. 14., pages 90-98.

Kasper, J., Weingartner, T., Danielson, S., 2007, Modeling circulation in the landfast ice zone, Alaska Marine Science Symposium Abstract Book, page 29.

Kasper, J., Weingartner, T., 2006, Modeling circulation in the landfast ice zone, *Eos Trans. AGU*, Fall Meet. Suppl., Abstract C33B-1269.

Recent Professional Presentations

“The Alaska Hydrokinetic Energy Research Center”, Panelist, Global Marine Renewable Energy Conference, Seattle, WA, May 2014

“The Alaska Hydrokinetic Energy Research Center”, Panelist, Business of Clean Energy Conference, Anchorage, AK May 2014

“Is Hydrokinetic Energy Generation Feasible in Alaska?”, Undergraduate Research Symposium, UAF, April 2014

“ACEP: Results-Driven Research for Alaska”, Alaska House Energy Committee, Juneau, AK, Feb. 2014

“Shelfbreak upwelling in the presence of landfast ice”, Poster, Ocean Sciences Meeting, Honolulu, HI, Feb. 2014

“Shelfbreak upwelling in the presence of landfast ice”, Poster, Alaska Marine Science Symposium, Anchorage, AK, Jan. 2014

“AHERC’s Tanana River Test Site”, U.S. Army Corps of Engineers Coastal and Hydraulics Laboratory, Vicksburg, MS, Nov. 2013

“Yakutat Area Wave Assessment”, U.S. Army Corps of Engineers Coastal and Hydraulics Laboratory, Vicksburg, MS, Nov. 2013

“The Yakutat Area Wave Assessment”, U.S. Army Corps of Engineers In Progress Review Yakutat, AK, Oct. 2013

“Response of the Beaufort shelf and slope to wind forcing for varying ice conditions”, Poster, Alaska Marine Science Symposium, January 2013.

“Impact of the ice cover on wind-forced exchange in the Alaskan Beaufort Sea” Invited Speaker, University of Alaska, Institute of Northern Engineering and International Arctic Research Center, March 2012.

“Impact of ice cover on wind-forced exchange in the Alaskan Beaufort Sea” Oral Presentation, Ocean Sciences Meeting, Feb. 2012

CV

- “Impact of the ice cover on wind-forced exchange in the Alaskan Beaufort Sea” Poster Presentation, 15th Annual Arctic Ocean Model Inter-comparison Workshop, Woods Hole Oceanographic Institution, Nov. 2011
- “Reanalysis Data Set for the Western Arctic & Labrador Sea”, Oral Presentation, WHOI Western Arctic Working Group, May 2011
- “The spreading of a buoyant river plume beneath a landfast ice cover”, Poster, American Meteorological Society 11th Conference on Polar Meteorology and Oceanography, May 2011.
- “Circulation, Cross-shelf Exchange, Sea Ice, and Marine Mammal Habitat on the Alaskan Beaufort Sea Shelf”, Oral Presentation, WHOI Western Arctic Working Group, March 2011
- “Idealized Modeling of Circulation Under Landfast Ice”, Physical Oceanography Seminar, Woods Hole Oceanographic Institution, January 2011
- “The Spreading of a Buoyant River Plume Beneath a Landfast Ice Cover”, Poster, Alaska Marine Science Symposium, January 2011
- “Physical Oceanographic Studies of An Arctic Shelf Sea”, Oral Presentation, Woods Hole Oceanographic Institution, Post Doctoral Research Symposium, November 2010
- “Idealized Modeling of Circulation Under Landfast Ice”, Ph.D. Defense, University of Alaska Fairbanks, November 2010
- “Modeling the Effects of a Landfast Ice Cover on Arctic Shelf Circulation”, Oral Presentation, Ocean Sciences Meeting, February 2010
- “Modeling the Effects of a Landfast Ice Cover on Arctic Shelf Circulation”, Oral Presentation, Institute of Marine Science Seminar, February 2010
- “Modeling circulation in the landfast ice zone”, Poster, Gordon Research Conference on Coastal Ocean Circulation, June 2009
- “Modeling the Effects of Wind Stress and Sea Ice on Arctic Coastal Circulation”, Oral Presentation, UA Computational Science Symposium, February 2009
- “Modeling Circulation in the Landfast Ice Zone”, Poster, Alaska Marine Science Symposium, January 2009

Professional Service

- Subject Matter Expert, IEC Project Team TC114, River Resource Assessment Standards
- Reviewer for the Journal of Geophysical Research Oceans
- Reviewer for Geophysical Research Letters
- Proposal Reviewer for North Pacific Research Board
- Proposal Reviewer for UAF Center for Global Change

Education and Outreach Experience

- 2014 Advisor/co-Advisor to 3 summer interns conducting research related to hydrokinetic energy
- 2012 Undergraduate summer research fellow mentor (Camil Hamel), Woods Hole Oceanographic Institution
- 2009 & 2003 Teaching Assistant, graduate level introduction to physical oceanography
- 2008 Reviewer for University of Alaska Sea Grant’s Alaska Seas and Rivers Curriculum for grades K-8
- 1998 Howard Hughes Medical Institute Biology Instructor (3rd & 4th grades), Portland, OR
- 1997-98 Undergraduate physics tutor, Physics Department, Reed College
- 1997-98 Teaching Assistant, Physics Department, Reed College