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## Curriculum Vitae

### CURRENT POSITION

#### **Research Assistant Professor**

**Institute of Northern Engineering, College of Engineering and Mines, University of Alaska Fairbanks**

### FIELD OF ACTIVITY

The main field of my scientific interest and activities relates to formation and degradation of ground ice, impact of contemporary periglacial processes on infrastructure and environment. The geography of my field studies in Alaska includes Beaufort Sea coast, Seward Peninsula, Brooks Range, Chugach Mountains, Yukon Flats, Alaska Range, Koyukuk Flats, etc. Studies commonly include drilling, permafrost mapping, and study of properties of frozen soils.

**Background.** 33 years of extensive experience in permafrost investigations, cold region engineering and environmental studies. Field works in Alaska and in Russian Permafrost Regions (Northern Yakutia, West Siberia, European North, East Siberia).

**Permafrost investigations.** Field study of cryogenic structure and ice content of perennially frozen sediments, of various types of ground ice. Laboratory investigation of properties of frozen and thawing soils. Permafrost mapping. Field studies of natural exposures, walls of quarries, boreholes, pits and mine galleries. Study of permafrost of mountain slopes, marine and river terraces, flood plains, thaw lakes basins. Study of ice-rich Quaternary sediments with syngenetic ice wedges. Study of ice content distribution in various sections of perennially frozen sediments. Classification of cryogenic structures of syngenetically and epigenetically frozen sediments of various age, origin and composition. Study of permafrost related hazards (thermokarst, thermal erosion, slope processes, frost heave and thermal cracking). Active layer monitoring.

**Cold region engineering.** Permafrost related hazards and their mitigation. Protection of pipelines and roads against thermokarst, sliding and erosion. Permafrost engineering problems related to placer mining.

***Environmental investigations.*** Assessment of chemical contamination of soils and surface waters. Complex assessment of environmental situation. Environmental mapping. Classification and mapping of lands disturbed by the development of golden placers, evaluation of placer mining influence on contamination of large rivers.

## **WORK EXPERIENCE**

2007-Present Institute of Northern Engineering, College of Engineering & Mines, University of Alaska Fairbanks; Research Assistant Professor.

2005-2007 Institute of Northern Engineering, College of Engineering & Mines, University of Alaska Fairbanks; EPSCoR Post Doctoral Fellow.

2001-2005 Earth Cryosphere Institute Siberian Branch Russian Academy of Sciences, Moscow; Senior Scientist.

1995-2001 Ecolandshaft Inc., Moscow; Senior Expert.

1993-1994 Engineering Geology and Geo-ecology Research Center Russian Academy of Sciences, Moscow; Senior Scientist.

1991-1992 Environmental Consulting Company "ECOLAS", Moscow; Senior Expert.

1985-1991 USSR Research Institute for Hydrogeology and Engineering Geology, Moscow; Scientist.

## **EDUCATION**

1985: M.S. in Geology (Permafrost and Engineering Geology), Moscow State University, Russia, Permafrost Department. Advisor: Professor N.N. Romanovskii.

2004: Ph.D. in Geology (Permafrost and Engineering Geology) Moscow State University, Russia. Advisor: Professor E.S. Melnikov.

2005-2007: Post Doc, Institute of Northern Engineering, College of Engineering and Mines, University of Alaska Fairbanks. Advisor: Professor Y. Shur.

## **CONTINUING EDUCATION**

1988 Complex engineering-geological and hydrogeological methods in the permafrost affected areas. Institute of Continuing Education of the USSR Ministry of Geology, Moscow

1986 Programming in FORTRAN-IV. Training in Scientific-Training Centre, Tallinn

1986 Courses on aerial reconnaissance. Training in Civil Aviation Training Centre, Moscow

## **RESEARCH EXPERIENCE**

### ***Permafrost research in various Permafrost Regions:***

- Alaska (Beaufort Sea coast from Barrow to Canadian border, Fox Permafrost Tunnel, Seward Peninsula, Brooks Range, Matanuska Glacier, Muldrow Glacier, Minchumina

- Lake, Koyukuk Flats, Gakona, Healy, Kennicott Glacier, Yukon Flats, Dalton Highway, Denali Highway, Innoko Lowlands);
  - Northern Yakutia (basins of Omoloy, Yana, Indigirka, Sellenyakh Rivers);
  - Western Siberia (Yamal Peninsula, Yenisey Gulf, Yenisey River);
  - European North of Russia (Pechora River Delta).
- Investigations of cryogenic structure and ice content: field studies of natural exposures (river banks, sea-shore cliffs); walls of quarries; boreholes; pits and mine galleries.
- Study of perennially frozen Quaternary sediments of various soils (sands, silts, clays) of various origin (alluvial, lacustrine, slope, eolian, marine, littoral):
  - Study of permafrost of mountain slopes, marine and river terraces, flood plains, thaw lakes basins.
  - Development of classification of thaw lakes basins and their cryogenic structure.
  - Study of ice-rich Quaternary sediments with huge syngenetic ice wedges (Yedoma, or Ice Complex).
  - Study of various types of ice wedges.
  - Study of tabular massive ground ice.
  - Study of pingo.
  - Development of morphogenetic classification of cryostructures of syngenetically and epigenetically frozen sediments.
- Study of distribution of cryostructure horizons and ice content in various sections of perennially frozen sediments.
- Monitoring of the active layer as a part of the International program CALM funded by US NSF:
  - Marre-Sale key site, Western Yamal;
  - Bolvanskiy Nos key site, Pechora River Delta.

***Frozen Ground Engineering:***

- Field and laboratory investigation of engineering properties of frozen and thawing soils.
- Long-term monitoring of permafrost related hazards (thermokarst, thermal erosion, slope processes, frost heave, thermal cracking):
  - monitoring of thermokarst and frost heave, and their impacts on roads;
  - monitoring of thermal erosion and thermal denudation rates.
- Permafrost and environmental mapping for engineering purposes.
- Evaluation of sources of chemical contamination of soils and surface waters; assessment of environmental problems.
- Development of engineering and environmental solutions, related to mining; classification and properties of deposits of tailing ponds associated with placer mining; classification and mapping of lands disturbed by mining, development of methods of their recovery.
- Evaluation of placer mining influence on contamination of surface waters of Northern Yakutia (Yana and Omoloy Rivers and their tributaries).
- Development of engineering and environmental solutions, related to road and pipelines construction.

***Environmental Engineering in temperate regions:***

- Development of engineering and environmental solutions in Moscow region (reconstruction of Moscow Belt Highway, landscape design, water protection, recovery of disturbed lands):

- methods of road protection against sliding and erosion based on gabion technology, developed by Italian company Officine Maccaferri S.p.A. (retaining walls, reinforcement of embankments, protection of bridges);
- methods of river flow control and water protection based on gabion technology (bank protection, weir dams, water treatment constructions);
- methods of slope protection and recovery of disturbed lands based on planting of greenery and on using of biomats, geotextile, hydroseeding.

## **CURRENT RESEARCH INTERESTS**

- Permafrost structure and properties;
- Origin and properties of various types of ground ice;
- Ground-ice content in the upper permafrost;
- Cryostratigraphy;
- Structure and properties of basal ice of glaciers, process of its burial.
- Permafrost related geological hazards (thermokarst, thermal erosion, frost heave, thermal cracking, slope processes);
- Impact of permafrost ice content and structure on rate of thermal erosion and thermokarst;
- Engineering and environmental problems associated with climate change.

I am a member of the American Geophysical Union (AGU) and the United States Permafrost Association (USPA).

## **RECENT PROJECTS**

- Environmentally Threatened Community Program Support (Denali Commission, 2017)
- Improving Design Methodologies and Assessment Tools for Building on Permafrost in a Warming Climate (DoD, 2014-2017)
- Cumulative Effects of Oil Development – planning and designing for sustainability (NSF, 2013-2016)
- Dynamics and Consequences of Increasing Ice-Wedge Degradation (NSF, 2010-2015)
- Permafrost Database Development, Characterization, and Mapping for Northern Alaska (FWS, 2012-2014)
- Collaborative Research: Forty-Thousand Years of Yedoma: an investigation into the spatial heterogeneity and paleo-history of organic-rich permafrost in Alaska (NSF, 2011-2013)
- Preservation of Traditional Ice Cellars in Permafrost (Exxon, 2010-2011)
- Geophysical Methods for Arctic/Subarctic Transportation Planning (AKDOT, 2010-2011)
- Impact of permafrost degradation on carbon and water in boreal ecosystems (NSF, 2007-2011)
- Effect of aggradation and degradation of ground ice on the evolution of permafrost-dominated landscapes under a changing climate (NSF, 2005-2010)
- Geotechnical Investigations for the Dalton Highway Innovation Project as a Case Study of the Ice-Rich Syngenetic Permafrost (AKDOT, 2008-2009)

- Flux and transformation of organic carbon across the eroding coastline of Northern Alaska (NSF, 2005-2009)
- Resilience and vulnerability in a rapidly changing North: the integration of physical, biological and social processes (physical science component) (NSF)

## PEER-REVIEWED PUBLICATIONS

1. Verpaelst, M., Fortier, D., **Kanevskiy, M.**, Paquette, M., and Shur, Y. (2017) Syngenetic dynamic of permafrost of a polar desert solifluction lobe, Ward Hunt Island, Nunavut. *Arctic Science*. doi: 10.1139/AS-2016-0018
2. Gilbert, G.L., **Kanevskiy, M.**, and Murton, J.B. (2016) Recent advances (2008–2015) in the study of ground ice and cryostratigraphy. *Permafrost and Periglacial Processes* 27 (4): 377-389. DOI: 10.1002/ppp.1912
3. Trochim, E.D., Schnabel, W.E., **Kanevskiy, M.**, Munk, J., Shur, Y. (2016) Geophysical and cryostratigraphic investigations for road design in northern Alaska. *Cold Regions Science and Technology* 131: 24-38. doi: 10.1016/j.coldregions.2016.08.004
4. **Kanevskiy, M.**, Shur, Y., Strauss, J., Jorgenson, M.T., Fortier, D., Stephani, E., and Vasiliev, A. (2016) Patterns and rates of riverbank erosion involving ice-rich permafrost (yedoma) in northern Alaska. *Geomorphology* 253: 370-384. doi: 10.1016/j.geomorph.2015.10.023
5. Ewing, S.A., O'Donnell, J.A., Aiken, G., Butman, D., Butler, K., Windham-Myers, L., **Kanevskiy, M.Z.** (2015) Long-term anoxia and release of ancient, labile carbon upon thaw of Pleistocene permafrost. *Geophysical Research Letters* 42: 10,730-10,738. DOI:10.1002/2015GL066296
6. Jorgenson, T., **Kanevskiy, M.Z.**, Shur, Y., Moskalenko, N.G., Brown, D.R.N., Wickland, K., Striegl, R., and Koch, J. (2015) Ground ice dynamics and ecological feedbacks control ice-wedge degradation and stabilization. *JGR Earth Surface* 120 (11): 2280-2297. doi:10.1002/2015JF003602.
7. Coulombe, S., Fortier, D., Shur, Y., **Kanevskiy, M.**, and Lacelle, D. (2015) Cryofacies and cryostructures of massive ice found on Bylot Island, Nunavut. 7th Canadian Permafrost Conference, September 20-23, 2015, Quebec City, Quebec, Canada.
8. Murton, J.B., Goslar, T., Edwards, M.E., Bateman, M.D., Danilov, P.P., Savvinov, G.N., Gubin, S.V., Ghaleb, B., Haile, J., **Kanevskiy, M.**, Lozhkin, A.V., Lupachev, A.V., Murton, D.K., Shur, Y., Tikhonov, A., Vasil'chuk, A.C., Vasil'chuk, Y.K., and Wolfe, S.A. (2015) Palaeoenvironmental Interpretation of Yedoma Silt (Ice Complex) Deposition as Cold-Climatic Loess, Duvanny Yar, Northeast Siberia. *Permafrost and Periglacial Processes* 26: 208–288.
9. Ewing, S.A., Paces, J.B., O'Donnell, J.A., Jorgenson, M.T., **Kanevskiy, M.Z.**, Aiken, G.R., Shur, Y., Harden, J.W., and Striegl, R. (2015) Uranium isotopes and dissolved organic carbon in loess permafrost: modeling the age of ancient ice. *Geochimica et Cosmochimica Acta* 152: 143-165, DOI: 10.1016/j.gca.2014.11.008
10. **Kanevskiy, M.**, Jorgenson, M.T., Shur, Y., O'Donnell, J.A., Harden, J.W., Zhuang, Q., and Fortier, D. (2014) Cryostratigraphy and permafrost evolution in lacustrine lowlands of west-

central Alaska. *Permafrost and Periglacial Processes* 25 (1), 14-34, DOI: 10.1002/ppp.1800.

11. Moskalenko, N.G., Jorgenson, T., **Kanevskiy, M.Z.**, Nossov, D., and Shur, Y.L. (2014) Vzaimosvyazi rastitel'nosti i sezonnogo protaivaniya mnogoletnemyorzlykh porod v arkticheskikh tundrakh Yamala i Alyaski [Relation between vegetation and seasonal thawing of permafrost in the Arctic tundra of Yamal and Alaska]. *Izvestiya Russkogo Geograficheskogo Obshchestva [Proceedings of Russian Geographical Society]* 146 (3), 71-87. (in Russian)
12. Raynolds, M.K., Walker, D.A., Ambrosius, K.J., Brown, J., Everett, K.R., **Kanevskiy, M.**, Kofinas, G.P., Romanovsky, V.E., Shur, Y., and Webber, P.J. (2014) Cumulative geoeological effects of 62 years of infrastructure and climate change in ice-rich permafrost landscapes, Prudhoe Bay Oilfield, Alaska. *Global Change Biology* 20 (4), 1211-1224, doi: 10.1111/gcd.12500.
13. Jorgenson, M.T., Harden, J., **Kanevskiy, M.**, O'Donnell, J., Wickland, K., Ewing, S., Manies, K., Zhuang, Q., Shur, Y., Striegl, R., and Koch, J. (2013) Reorganization of vegetation, hydrology and soil carbon after permafrost degradation across heterogeneous boreal landscapes. *Environmental Research Letters* 8 (3), 035017, doi:10.1088/1748-9326/8/3/035017
14. Nossov, D.R., Jorgenson, M.T., Kielland, K., and **Kanevskiy, M.** (2013) Edaphic and microclimatic controls over permafrost response to fire in interior Alaska. *Environmental Research Letters* 8 (3), 035013, doi:10.1088/1748-9326/8/3/035013
15. **Kanevskiy, M.**, Shur, Y., Krzewinski, T., Dillon, M. (2013) Structure and Properties of Ice-Rich Permafrost near Anchorage, Alaska. *Cold Regions Science and Technology* 93, 1-11. doi:10.1016/j.coldregions.2013.05.001
16. **Kanevskiy, M.**, Shur, Y., Jorgenson, M.T., Ping, C.-L., Michaelson, G.J., Fortier, D., Stephani, E., Dillon, M., Tumskey, V. (2013) Ground ice in the upper permafrost of the Beaufort Sea Coast of Alaska. *Cold Regions Science and Technology* 85, 56-70. doi: 10.1016/j.coldregions.2012.08.002
17. **Kanevskiy, M.**, Shur, Y., Connor, B., Dillon, M., Stephani, E., O'Donnell, J. (2012) Study of the ice-rich syngenetic permafrost for road design (Interior Alaska). In: *Proceedings of the Tenth International Conference on Permafrost, June 25-29, 2012, Salekhard, Russia*. The Northern Publisher, Salekhard, Russia. Vol. 1: International contributions. Hinkel, K.M. (ed.): 191-196.
18. Jorgenson, T., **Kanevskiy, M.**, Shur, Y., Osterkamp, T., Fortier, D., Cater, T., Miller, P. (2012) Thermokarst lake and shore fen development in boreal Alaska. In: *Proceedings of the Tenth International Conference on Permafrost, June 25-29, 2012, Salekhard, Russia*. The Northern Publisher, Salekhard, Russia. Vol. 1: International contributions. Hinkel, K.M. (ed.): 179-184.
19. Shur, Y., **Kanevskiy, M.**, Jorgenson, T., Dillon, M., Stephani, E., Bray, M. (2012) Permafrost degradation and thaw settlement under lakes in yedoma environment. In: *Proceedings of the Tenth International Conference on Permafrost, June 25-29, 2012, Salekhard, Russia*. The Northern Publisher, Salekhard, Russia. Vol. 1: International contributions. Hinkel, K.M. (ed.): 383-388.
20. Fortier, D., **Kanevskiy, M.**, Shur, Y., Stephani, E., Dillon, M., Jorgenson, T. (2012) Cryostructures of basal glacier ice as an object of permafrost study: observations from the Matanuska Glacier, Alaska. In: *Proceedings of the Tenth International Conference on*

- Permafrost, June 25-29, 2012, Salekhard, Russia*. The Northern Publisher, Salekhard, Russia. Vol. 1: International contributions. Hinkel, K.M. (ed.): 107-112.
21. O'Donnell J.A., M.T. Jorgenson, J.W. Harden, A.D. McGuire, **M.Z. Kanevskiy**, K.P. Wickland (2012) The effects of permafrost thaw on soil hydrologic, thermal, and carbon dynamics in an Alaska peatland. *Ecosystems* 15 (2): 213-229. DOI: 10.1007/s10021-011-9504-0.
  22. Jorgenson, T., Shur, Y., Osterkamp, T., Ping, C.-L., **Kanevskiy, M.** (2011) Environment of the Beaufort Coastal Plain. In: *Coastal Region of Northern Alaska. Guidebook to Permafrost and Related Features. Guidebook 10*. M. Torre Jorgenson (ed.). State of Alaska, Department of Natural Resources, Division of Geological and Geophysical Surveys: 1-39.
  23. Shur, Y., Jorgenson, M.T., and **Kanevskiy, M.Z.** (2011) Permafrost. In (Eds: Singh, V.P., Singh, P., and Haritashya, U.K.): *Encyclopedia of Earth Sciences Series, Encyclopedia of Snow, Ice and Glaciers*: 841-848. DOI: 10.1007/978-90-481-2642-2.
  24. **Kanevskiy, M.**, Shur, Y., Jorgenson, M.T., Ping, C.-L., Fortier, D., Stephani, E. and Dillon, M. (2011) Permafrost of Northern Alaska. In: *Proceedings of the Twenty-first International Offshore and Polar Engineering Conference Maui, Hawaii, USA, June 19-24, 2011*: 1179-1186, ISBN 978-1-880653-96-8 (Set); ISSN 1098-6189 (Set); www.isopec.org.
  25. Ping, C.-L., G.J. Michaelson, L. Guo, M.T. Jorgenson, **M. Kanevskiy**, Y. Shur, F. Dou, J. Liang (2011) Soil Carbon and Material Fluxes across the Eroding Alaska Beaufort Sea Coastline. *Journal of Geophysical Research* 116, G02004, doi: 10.1029/2010JG001588, 2011.
  26. **Kanevskiy, M.**, Shur, Y., Fortier, D., Jorgenson, M.T., and Stephani, E. (2011) Cryostratigraphy of late Pleistocene syngenetic permafrost (yedoma) in northern Alaska, Itkillik River exposure. *Quaternary Research* 75, 584-596, doi:10.1016/j.yqres.2010.12.003.
  27. Douglas, T.A., D. Fortier, Y. Shur, **M.Z. Kanevskiy**, L. Guo, Y. Cai, and M. Bray. (2011) Biogeochemical and geocryological characteristics of wedge and thermokarst-cave ice in the CRREL permafrost tunnel, Alaska. *Permafrost and Periglacial Processes* 22: 120-128 DOI: 10.1002/ppp.709.
  28. O'Donnell J.A., J.W. Harden, A.D. McGuire, **M.Z. Kanevskiy**, M.T. Jorgenson, X. Xu (2011) The effect of fire and permafrost interactions on soil carbon accumulation in an upland black spruce ecosystem of interior Alaska: implications for post-thaw carbon loss. *Global Change Biology* 17, 1461-1474, doi: 10.1111/j.1365-2486.2010.02358.x.
  29. Jorgenson M.T., V.E. Romanovsky, J.W. Harden, Y. Shur, J.A. O'Donnell, E.A.G. Schuur, **M.Z. Kanevskiy**. (2010) Resilience and vulnerability of permafrost to climate change. *Canadian Journal of Forest Research* 40: 1219-1236.
  30. Osterkamp, T.E., Jorgenson, M.T., Schuur, E.A.G., Shur, Y., **Kanevskiy, M.Z.**, Vogel, J.G., and Tumskey, V.E. (2009) Physical and ecological changes associated with warming permafrost and thermokarst in Interior Alaska. *Permafrost and Periglacial Processes*. 20 (3): 235-256. DOI: 10.1002/ppp.656
  31. **Kanevskiy, M.**, Fortier, D., Shur, Y., Bray, M., Jorgenson, T. (2008) Detailed cryostratigraphic studies of syngenetic permafrost in the winze of the CRREL permafrost tunnel, Fox, Alaska. In: *Proceedings of the Ninth International Conference on Permafrost, June 29 – July 3, 2008, Fairbanks, Alaska*. Kane, D.L. & Hinkel, K.M. (eds). Institute of Northern Engineering, University of Alaska Fairbanks, vol. 1: 889-894.
  32. Fortier, D., **Kanevskiy, M.**, Shur, Y. (2008) Genesis of reticulate-chaotic cryostructure in permafrost. In: *Proceedings of the Ninth International Conference on Permafrost, June 29 –*

- July 3, 2008, Fairbanks, Alaska. Kane, D.L. & Hinkel, K.M. (eds). Institute of Northern Engineering, University of Alaska Fairbanks, vol. 1: 451-456.
33. Douglas, T.A., Jorgenson, M.T., **Kanevskiy, M.Z.**, Romanovsky, V.E., Shur, Y., Yoshikawa, K. (2008) Investigations into permafrost dynamics at the Fairbanks Permafrost Experimental Station near Fairbanks, Alaska. In: *Proceedings of the Ninth International Conference on Permafrost, June 29 – July 3, 2008, Fairbanks, Alaska*. Kane, D.L. & Hinkel, K.M. (eds). Institute of Northern Engineering, University of Alaska Fairbanks, vol. 1: 373-378.
  34. Streletskaya, I.D., Vasiliev, A.A., **Kanevskiy, M.Z.** (2008) Freezing of marine sediments and formation of continental permafrost at the coasts of Yenisey Gulf. In: *Proceedings of the Ninth International Conference on Permafrost, June 29 – July 3, 2008, Fairbanks, Alaska*. Kane, D.L. & Hinkel, K.M. (eds). Institute of Northern Engineering, University of Alaska Fairbanks, vol. 2: 1721-1726.
  35. Dillon, M., Fortier, D., **Kanevskiy, M.**, Shur, Y. (2008) Tomodensitometric analysis of basal ice. In: *Proceedings of the Ninth International Conference on Permafrost, June 29 – July 3, 2008, Fairbanks, Alaska*. Kane, D.L. & Hinkel, K.M. (eds). Institute of Northern Engineering, University of Alaska Fairbanks, vol. 1: 361-366.
  36. Ping, C.-L., Lynn, L.A., Michaelson, G.J., Jorgenson, M.T., Shur, Y.L., and **Kanevskiy, M.** (2008) Classification of Arctic Tundra Soils Along the Beaufort Sea Coast, Alaska. In: *Proceedings of the Ninth International Conference on Permafrost, June 29 – July 3, 2008, Fairbanks, Alaska*. Kane, D.L. & Hinkel, K.M. (eds). Institute of Northern Engineering, University of Alaska Fairbanks, vol. 2: 1423-1426.
  37. Munroe, J., Doolittle, J., **Kanevskiy, M.**, Hinkel, K., Nelson, F., Jones, B., Shur, Y., Kimble, J. (2007) Application of ground-penetrating radar imagery for three-dimensional visualization of near-surface structures in ice-rich permafrost, Barrow, Alaska. In: *Permafrost and Periglacial Processes* 18 (4): 309-321.
  38. Streletskaya, I., Gusev, E., Vasiliev, A., **Kanevskiy, M.**, Anikina, N., Derevyanko, L. (2007) New results of Quaternary sediment Studies of Western Taymyr. In: *Kriosfera Zemli (Earth Cryosphere)* XI (3): 14-28 (in Russian).
  39. Streletskaya, I., Vasiliev, A., **Kanevskiy, M.**, Vanshtein, B., Shirokov, R. (2006) Organic carbon in the coastal Quaternary sediments of the Kara Sea. In: *Kriosfera Zemli (Earth Cryosphere)* X (4): 35-43 (in Russian).
  40. Streletskaya, I., **Kanevskiy, M.**, and Vasiliev, A. (2006) Massive ground ice in dislocated Quaternary sediments of Western Yamal. In: *Kriosfera Zemli (Earth Cryosphere)*, X (2): 68-78 (in Russian)
  41. Vasiliev, A., **Kanevskiy, M.**, Cherkashov, G., and Vanshtein, B. (2005) Coastal dynamics at the Barents and Kara Sea key sites. In: *Geo-Marine Letters*, 25: 110-120.
  42. **Kanevskiy, M.**, Streletskaya, I., and Vasiliev, A. (2005) Formation of cryogenic structure of Quaternary sediments in Western Yamal. In: *Kriosfera Zemli (Earth Cryosphere)*, IX (3): 16-27 (in Russian)
  43. Streletskaya, I., **Kanevskiy, M.**, Vasiliev, A., and Surkov, A. (2005) Composition of tabular massive ground ice and Quaternary deposits in the Marre-Sale area, Western Yamal. In: *Materials of the Third Conference of Russian Geocryologists*, MSU 1-3 June 2005, Moscow: Moscow University Press, Vol. 3: 251-259 (in Russian)
  44. **Kanevskiy, M.** (2003) Cryogenic structure of mountain slope deposits, northeast Russia In: Phillips, M., Springman, S., Arenson, L. (eds) *Proceedings of the Eighth International*



*Conference on Permafrost*, 21-25 July 2003, Zurich, Switzerland, Swets & Zeitlinger B.V., Lisse, The Netherlands, vol. 1: 513-518.

45. Zaikanov, V., **Kanevskiy, M.** (1992) The causes of contamination of Yana and Omoloy rivers. In: Faddeev, L. (edit) *Nature (Priroda)*, №9, Moscow: 90-94 (in Russian)
46. Zaikanov, V., **Kanevskiy, M.** (1992) The coastal processes in the valleys of large rivers in Northern Yakutia. In: Grechishchev, S., Vasiliev, A., Sheshin, Y. (edit) *Methods of study of cryogenic processes*, Moscow, VSEGINGEO: 16-29 (in Russian)
47. **Kanevskiy, M.** (1991) The role of quasi-syngeneses in formation of Quaternary sediments cryogenic structure in Northern Yakutia. In: Melnikov, P. and Shur, Y. (edit) *The upper horizon of permafrost*, Moscow, Nauka: 47-63 (in Russian)
48. Samylin, I., **Kanevskiy, M.**, and Maximov, V. (1991) Cryogenic structure and properties of deposits of tailing ponds at the placers of Northern Yakutia. In: Melnikov, P. and Shur, Y. (eds) *The upper horizon of permafrost*, Moscow, Nauka: 76-87 (in Russian)
49. Zaikanov, V., **Kanevskiy, M.**, and Samylin, I. (1991) Geoecological mapping of lands disturbed while the development of mines in Northern Yakutia. In: Galitsin, M., Dyakonova, V., Grechishchev, S. (eds) *Geoecology: problems and solutions*, vol. III, Moscow, VSEGINGEO: 140-142 (in Russian)
50. **Kanevskiy, M.**, Maximov, V. (1990) Engineering-geocryological investigations in areas of the ice-rich syngenetic permafrost. In: Melnikov, E. (edit) *Methods of engineering-geocryological mapping*, Moscow, VSEGINGEO: 94-100 (in Russian)
51. **Kanevskiy, M.** (1990) Differentiation of the permafrost sequence into engineering-geological patterns. In: Grechishchev, S., Shur, Y. (edit) *Permafrost composition and structure for prediction of permafrost related hazards (manual)*. Moscow, Ministry of geology USSR, VSEGINGEO: 13-16 (in Russian)
52. **Kanevskiy, M.**, Shur, Y., and Slavin-Borovsky, V. (1990) Evaluation of content of ice inclusions in permafrost. In: Grechishchev, S. and Shur, Y. (eds), *Permafrost composition and structure for prediction of permafrost related hazards (manual)*. Moscow, Ministry of geology USSR, VSEGINGEO: 17-30 (in Russian)

## OTHER PUBLICATIONS AND PRESENTATIONS

53. Wickland, K., Jorgenson, T., Ewing, S., Johnston, C.E., **Kanevskiy, M.**, and Harden, J. (2016) Patterns and controls of methane fluxes across permafrost and ice-wedge degradation wetland chronosequences in Arctic and boreal Alaska. Abstract B21L-07 presented at 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.
54. Zhang, X., Bianchi, T.S., Cui, X., Rosenheim, B.E., Ping, C.-L., **Kanevskiy, M.**, Hanna, A.M., and Allison, M.A. (2016) Permafrost Mobilization from the Watershed to the Colville River Delta: Evidence from Biomarkers and <sup>14</sup>C Ramped Pyrolysis. Abstract B43G-08 presented at 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.
55. Walker, D.A., **Kanevskiy, M.**, Shur, Y., Reynolds, M.K., and Buchhorn, M. (2016) Cumulative effects of climate change and ice-wedge degradation, Prudhoe Bay oilfield Alaska. Abstract GC33G-01 presented at 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.
56. Bjella, K., Johnson, J., Shur, Y., **Kanevskiy, M.**, Best, J., Duvoy, P., Hinkel, K. (2016) Improving the Methodology for Characterizing Permafrost Terrain for Engineering. In:

Abstracts of the Eleventh International Conference on Permafrost, June 20-24, 2016, Potsdam, Germany: 1098-1100.

57. Buchhorn, M., Raynolds, M.K., **Kanevskiy, M.**, Matyshak, G., Shur, Y., Willis, M.D., Peirce, J.L., Wirth, L.M., and Walker, D.A. (2016) Effects of 45 years of heavy road traffic and climate change on the thermal regime of permafrost and tundra at Prudhoe Bay, Alaska. In: Abstracts of the Eleventh International Conference on Permafrost, June 20-24, 2016, Potsdam, Germany: 1221-1222.
58. Ewing, S.A., O'Donnell, J., Paces, J., Aiken, G., **Kanevskiy, M.**, Koch, J., Striegl, R. (2016) Tracking the age of ice and the fate of carbon from yedoma thaw. In: Abstracts of the Eleventh International Conference on Permafrost, June 20-24, 2016, Potsdam, Germany: 596.
59. **Kanevskiy M.**, Shur, Y., Walker, D.A., Buchhorn, M., Jorgenson, T., Matyshak, G., Raynolds, M.K., Peirce, J.L., and Wirth, L.M. (2016) Evaluation of Risk of Ice-Wedge Degradation, Prudhoe Bay Oilfield, AK. In: Abstracts of the Eleventh International Conference on Permafrost, June 20-24, 2016, Potsdam, Germany: 1007-1009.
60. Shur, Y., **Kanevskiy, M.**, Walker, D.A., Jorgenson, T., Buchhorn, M., Raynolds, M.K., and Toniolo, H. (2016) Permafrost-Related Causes and Consequences of the Sagavanirktok River Flooding in Spring 2015. In: Abstracts of the Eleventh International Conference on Permafrost, June 20-24, 2016, Potsdam, Germany: 1021-1023.
61. Strauss, J., Fedorov, A.N., Fortier, D., Froese, D., Fuchs, M., Grosse, G., Günther, F., Harden, J., Hugelius, G., **Kanevskiy, M.**, Kholodov, A., Kunitsky, V., Kraev, G., Laboor, S., Lapointe-Elmrabti, L., Lozhkin, A., Rivkina, E., Robinson, J., Schirrmeister, L., Shmelev, D., Shur, Y., et al. (2016) Ice-Rich Yedoma Permafrost: A Synthesis of Northern Hemisphere Distribution and Thickness (IPA Action Group) In: Abstracts of the Eleventh International Conference on Permafrost, June 20-24, 2016, Potsdam, Germany: 616-618.
62. Walker, D.A., Peirce, J., Kumpula, T., Leibman, M.O., Matyshak, G., Streletskiy, D., Raynolds, M.K., Shur, Y.S., **Kanevskiy, M.**, et al. (2016) Rapid Arctic Transitions due to Infrastructure and Climate (RATIC): An ICARP III initiative focusing on the cumulative effects of Arctic infrastructure and climate change. In: Abstracts of the Eleventh International Conference on Permafrost, June 20-24, 2016, Potsdam, Germany: 1253-1255.
63. Walker, D.A., Epstein, H.E., Raynolds, M.K., Buchhorn, M., Kumpula, T., Forbes, B.C., Leibman, M.O., Khomutov, A., Matyshak, G.V., Curry, T., Kofinas, G., Romanovsky, V., Shur, Y. and **Kanevskiy, M.Z.** (2016) Yamal LCLUC Synthesis: Comparison of infrastructure development and consequences to social-ecological systems in the Bovanenkovo Gas Field, Russia and the Prudhoe Bay Oilfield, Alaska. Presented at NASA LCLUC Science Team Meeting, 18-19 April 2016, Bethesda, MD.
64. Walker, D.A., Kofinas, G., Raynolds, M.K., **Kanevskiy, M.Z.**, Shur, Y., et al. (2015) Rapid Arctic Changes due to Infrastructure and Climate (RATIC) in the Russian North. Abstract GC31B-1183 presented at 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
65. Buchhorn, M., Walker, D.A., Raynolds, M.K., **Kanevskiy, M.**, Matyshak, G.V., Shur, Y., and Peirce, J.L. (2015) Effects of 45 Years of Heavy Road Traffic and Infrastructure on Permafrost and Tundra at Prudhoe Bay, Alaska. Abstract GC23J-1215 presented at 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
66. Strauss, J., Fedorov, A.N., Fortier, D., Froese, D.G., Fuchs, M., Grosse, G., Günther, F., Harden, J.W., Hugelius, G., **Kanevskiy, M.Z.**, Kholodov, A.L., Kunitsky, V., Laboor, S., Lapointe Elmrabti, L., Rivkina, E., Robinson, J.E., Schirrmeister, L., Shmelev, D., Shur, Y.,

- Spektor, V., Ulrich, M., Veremeeva, A., Walter Anthony, K.M., and Zimov, S.A. (2015) Ice-Rich Yedoma Permafrost: A Synthesis of Circum-Arctic Distribution and Thickness. Abstract GC23J-1223 presented at 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
67. Walker, D.A., Buchhorn, M., **Kanevskiy, M.**, Matyshak, G.V., Raynolds, M.K., Shur, Y., and Wirth, L.M. (2015) Infrastructure-Thermokarst-Soil-Vegetation interactions at Lake Colleen Site A, Prudhoe Bay, Alaska. Walker, D.A., Raynolds, M.K., Buchhorn, M., Peirce J.L. (eds.). Alaska Geobotany Center Data Report AGC 15-01. Institute of Arctic Biology, University of Alaska Fairbanks, Fairbanks, AK, 92 p.
68. Walker, D.A., Raynolds, M.K., Shur, Y., **Kanevskiy, M.**, Ambrosius, K.J., Romanovsky, V.E., Kofinas, G.P., Brown, J., Everett, K.R., Webber, P.J., Buchhorn, M., Matyshak, G.V., and Wirth, L.M. (2014) Landscape and permafrost changes in the Prudhoe Bay Oilfield, Alaska. Walker, D.A., Raynolds, M.K., Buchhorn, M., Peirce J.L. (eds.). Alaska Geobotany Center Publication AGC 14-01. University of Alaska Fairbanks, Fairbanks, AK, 84 p.
69. Jorgenson, M.T., **Kanevskiy, M.**, Shur, Y., Grunblatt, J., Ping, C.L., and Michaelson, G. 2014. Permafrost database development, characterization, and mapping for northern Alaska. Report for Arctic Landscape Conservation Cooperative by Alaska Ecoscience and University of Alaska Fairbanks, 45 pp. <http://www.gina.alaska.edu/projects/permafrost-database-and-maps-for-northern-alaska>.
70. **Kanevskiy M.**, Shur, Y., Matyshak, G., Walker, D.A., Buchhorn, M., Jorgenson, M.T., Raynolds, M.K., and Wirth, L. (2014) Degradation and recovery of ice wedges in relation to road infrastructure in the Prudhoe Bay Oilfield, AK. In: Book of Poster Abstracts, Arctic Change 2014 Conference, Ottawa, Canada, 8-12 December 2014: p. 90.
71. Buchhorn, M., **Kanevskiy M.**, Matyshak, G., Raynolds, M.K., Shur, Y., Wirth, L., and Walker, D.A. (2014) Effects of 45 years of heavy road traffic on permafrost and tundra along the Spine Road at Prudhoe Bay, Alaska. In: Book of Poster Abstracts, Arctic Change 2014 Conference, Ottawa, Canada, 8-12 December 2014: p. 22-23.
72. Lapointe Elmrbati, L., Talbot, J., Shur, Y., **Kanevskiy M.**, Frechette, B., and Fortier, D. (2014) Paleoenvironmental records from a Late Pleistocene syngenetic permafrost (yedoma), Ikillik River, Alaska. In: Book of Poster Abstracts, Arctic Change 2014 Conference, Ottawa, Canada, 8-12 December 2014: p. 102-103.
73. Walker, D.A., Allard, M., Kumpula, T., Raynolds, M.K., Shur, Y., Kofinas, G., **Kanevskiy M.**, Romanovsky, V., Buchhorn, M., and Wirth, L. (2014) Rapid Arctic Transitions related to Infrastructure and Climate Change (RATIC): a case study from Prudhoe Bay, Alaska. In: Book of Oral Presentation Abstracts, Arctic Change 2014 Conference, Ottawa, Canada, 8-12 December 2014: p. 192-193.
74. **Kanevskiy M.**, Shur, Y., Beget, J.E., Bigelow, N.H., Bjella, K., Cysewski, M., Jorgenson, M.T., and Sturm, M. (2014) Ground Ice in the New CRREL Permafrost Tunnel. Abstract C43A-0359 presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.
75. Shur, Y., Jorgenson, T., and **Kanevskiy, M.Z.** (2014) Northern Peatland Shifts Under Changing Climate and Their Impact on Permafrost. Abstract C11C-0393 presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.
76. Schnabel, W., Fortier, R., Kanevskiy, M., Munk, J., Shur, Y., Trochim, E. (2014) Geophysical applications for arctic/subarctic transportation planning. Final report prepared for Alaska University Transportation Center, Project # 410018, INE/AUTC 13.01.

77. Walker, D.A., Raynolds, M.K., Kumpula, T., Shur, Y., **Kanevskiy, M.Z.**, Kofinas, G., Leibman, M.O., Matyshak, G.V. Epstein, H.E., Buchhorn, M., Wirth, L., and Forbes, C. (2014) Rapid Arctic Transitions in Relation to Infrastructure and Climate Change: Comparison of the Permafrost and Geocological Conditions in the Bovanenkovo Gas Field, Russia and the Prudhoe Bay Oil Field, Alaska. Abstract GC31B-0461 presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.
78. **Kanevskiy M.**, Shur, Y. and Jorgenson, M.T. (2014) Yedoma in Alaska: distribution, cryostratigraphy, vulnerability to thermokarst and thermal erosion. In: Book of Abstracts of EUCOP4 – 4th European Conference on Permafrost, 18-21 June 2014 - Évora, Portugal: p. 303. (Keynote lecture)
79. Murton, J., Goslar, T. Edwards, M., Danilov, P., Savvinov, G., Gubin, S., Ghaleb, B., Haile, J., **Kanevskiy, M.**, Lozhkin, A., Lupachev, A., Murton, D., Shur, Y., Tikhonov, A., Vasil'chuk, A., Vasil'chuk, Y. (2014) Aeolian deposition, chronology and palaeoenvironments of Late Pleistocene yedoma silts (Ice Complex) at Duvanny Yar, NE Siberia. In: Book of Abstracts of EUCOP4 – 4th European Conference on Permafrost, 18-21 June 2014 - Évora, Portugal: p. 305.
80. Jorgenson, M.T., Shur, Y., **Kanevskiy, M.** (2014) A Thermokarst Monitoring Network for Alaska. In: Book of Abstracts of EUCOP4 – 4th European Conference on Permafrost, 18-21 June 2014 - Évora, Portugal: p. 480.
81. **Kanevskiy, M.**, Shur, Y., Fortier, D., Jorgenson, T., Stephani, E., Strauss, J. (2013) Extreme rates of riverbank erosion of the high bluff formed by the ice-rich syngenetic permafrost, Itkillik River, northern Alaska. Abstract C53A-0536 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.
82. Lapointe Elmrabti, L., Fortier, D., Shur, Y., **Kanevskiy, M.**, Talbot, J. (2013) Late Pleistocene and Holocene Beringia vegetation dynamic reconstructions based on a yedoma exposure, Itkillik (Alaska). Abstract PP21A-1893 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.
83. O'Donnell, J.A., Harden, J.W., Manies, K.L., Jorgenson, M.T., **Kanevskiy, M.Z.**, and Xu, Xiaomei. 2013. Soil data from fire and permafrost - thaw chronosequences in upland black spruce (*Picea mariana*) stands near Hess Creek and Tok, interior Alaska: U.S. Geological Survey Open-File Report 2013–1045, 16 p.
84. Strauss, J., Y. Shur, **M. Kanevskiy**, D. Fortier, K. Bjella, A. Breen, and C. Johnson (2012) Expedition Alaskan North Slope / Itkillik 2012. In Strauss, J., M. Ulrich, M. Buchhorn, M.(Eds) Expeditions to permafrost 2012: Alaskan North Slope/Itkillik, Thermokarst in Central Yakutia, and EyeSight-NAAT-Alaska, Reports on Polar and Marine Research, Bremerhaven, Alfred Wegener Institute for Polar and Marine Research, 655, pp. 3-28.
85. **Kanevskiy, M.**, Jorgenson, T., Shur, Y., O'Donnell, J., Harden, J., Fortier, D. (2012) Formation of lacustrine plains in west-central Alaska as a result of permafrost degradation and aggradation. Abstract C13A-0596 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
86. Jorgenson, T., Shur, Y., **Kanevskiy, M.**, Harden, J. (2012) Role of Permafrost in Ecosystem and Landscape Heterogeneity. Abstract B52C-04 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
87. Fortier, D., Kurchatova, A., Jorgenson, T., Godin, E., Lepage, J., Stephani, E., **Kanevskiy, M.**, Shur, Y. (2012) Origin of massive ice at Cape Marre-Sale, Yamal Peninsula, Siberia,

- Russia: contrasting views. Abstract C13A-0605 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
88. Schnabel, W., Trochim, E., Munk, J., **Kanevskiy, M.**, Shur, Y., Fortier, R. (2012) Quantifying Permafrost Characteristics with DCR-ERT. Abstract C13C-0638 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
  89. Stephani, E., **Kanevskiy, M.**, Dillon, M., Bray, M., Shur, Y. (2012) Cryostratigraphy of Yedoma (Ice Complex) in Seward Peninsula, Alaska. In: *Tenth International Conference on Permafrost, June 25-29, 2012, Salekhard, Russia*. Vol. 4/2: Extended abstracts. Fort Dialog-Iset: Ekaterinburg, Russia: 569-570.
  90. Koven, C., Harden, J., Ping, C., Michaelson, G., **Kanevskiy, M.**, McGuire, D., Hugelius, G., Kuhry, P., Tarnocai, C., Jorgenson, T., Riley, W.J. (2012) A combined analysis of permafrost C depth distributions and multi-model permafrost thermal dynamics to estimate C pools vulnerable to warming. In: *Tenth International Conference on Permafrost, June 25-29, 2012, Salekhard, Russia*. Vol. 4/1: Extended abstracts. Fort Dialog-Iset: Ekaterinburg, Russia: 288-289.
  91. **Kanevskiy, M.**, Shur, Y., Jorgenson, T., Sturm, M., Bjella, K., Bray, M., Harden, J., Dillon, M., Fortier, D. (2011) Pleistocene ice-rich yedoma in Interior Alaska. Abstract C41C-0417 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
  92. Fortier, D., Coulombe, S., **Kanevskiy, M.**, Paquette, M., Shur, Y., Stephani, E. (2011) Buried glacier ice in permafrost, a window to the past: examples from Bylot Island, Canadian Arctic. Abstract C41C-0418 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
  93. Jorgenson, T., Harden, J., O'Donnell, J., **Kanevskiy, M.**, Wickland, K., Ewing, S., Koch, J., Streigl, R., Zhuang, Q. (2011) Ecological framework for assessing changes in soil water and carbon in response to degrading permafrost. Abstract XXXX presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.
  94. Harden, J., O'Donnell, J., Jorgenson, T., Ewing, S., **Kanevskiy, M.** (2011) The distribution and vulnerabilities of carbon in permafrost landscapes. XVIII INQUA-Congress //
  95. **Kanevskiy, M.**, Y. Shur, B. Connor, M. Dillon, S. Masterman, J.A. O'Donnell, J. Rowland, E. Stephani. (2010) Geotechnical investigations of the ice-rich syngenetic permafrost in Interior Alaska. Abstract C31A-0509 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
  96. Jorgenson, T., **M. Kanevskiy**, Y. Shur, J. Harden, J. O'Donnell, K. Wickland, S. Ludwig, R. Streigl, and Q. Zhuang. (2010) History and Vulnerability of Permafrost in Upland and Lowland Boreal Landscapes. Abstract C41C-03 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
  97. Harden, J., T. Jorgenson, C. Fuller, K. Wickland, J. O'Donnell, S. Ewing, **M. Kanevskiy**, Q. Zhuang. (2010) The fate of carbon in a thawing world. Abstract B33I-01 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
  98. Ewing S.A., J.B. Paces, J.A. O'Donnell, **M.Z. Kanevskiy**, G.R. Aiken, M.T. Jorgenson, Y. Shur, R. Striegl. (2010) Uranium isotopes in loess permafrost: modeling the age of ancient ice. Abstract C31A-0506 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
  99. O'Donnell J.A., J.W. Harden, A.D. McGuire, V.E. Romanovsky, **M.Z. Kanevskiy**, T. Jorgenson. (2010) Soil carbon accumulation and loss in Alaska's boreal forest: exploring the

- interactive effects of wildfire and permafrost thaw. Abstract B34D-07 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
100. Shur, Y., **Kanevskiy, M.**, Dillon, M., Stephani, E., and O'Donnell, J. (2010) Geotechnical investigations for the Dalton Highway innovation project as a case study of the ice-rich syngenetic permafrost. Report # FHWA-AK-RD-10-06, prepared for AK DOT & PF, AUTC assigned project # 207122.
  101. Shur, Y., Jorgenson, M.T., **Kanevskiy, M.** (2010) Glacially-derived permafrost. In: Abstracts from the Third European Conference on Permafrost, 13-17 June 2010, Svalbard, Norway, UNIS, p. 79.
  102. Ping, C.-L., Michaelson, G.J., Jorgenson, M.T., **Kanevskiy, M.**, and Shur, Y., (2010) Soils of the northern Alaska Low Arctic. In: Abstracts from the Third European Conference on Permafrost, 13-17 June 2010, Svalbard, Norway, UNIS, p. 194.
  103. **Kanevskiy, M.Z.**, Jorgenson, M.T., Shur, Y., O'Donnell, J.A., Harden, J.W., Fortier, D. (2009) Cryogenic structure and ice content of lacustrine sediments in the Yukon River Basin, Alaska. *Eos Trans. AGU*, 90 (52), Fall Meet. Suppl., Abstract C41A-0433.
  104. Shur, Y., **Kanevskiy, M.Z.**, Jorgenson, M.T., Fortier, D., Dillon, M., Stephani, E., Bray, M. (2009) Yedoma and thermokarst in the northern part of Seward Peninsula, Alaska. *Eos Trans. AGU*, 90 (52), Fall Meet. Suppl., Abstract C41A-0443.
  105. Stephani, E., Dillon, M., Fortier, D., Jorgenson, T., **Kanevskiy, M.Z.**, Shur, Y. (2009) Geomorphological characteristics of Yedoma terrains in the northern part of Seward Peninsula, Alaska. *Eos Trans. AGU*, 90 (52), Fall Meet. Suppl., Abstract C41A-0435.
  106. Jorgenson, M.T., Harden, J.W., **Kanevskiy, M.Z.**, Striegl, R.G., Wickland, K., Ewing, S.A., Koch, J., O'Donnell, J.A., Shur, Y., Zhuang, Q. (2009) Hydrologic Reorganization of Degrading Permafrost Landscapes at Multiple Spatial Scales. *Eos Trans. AGU*, 90 (52), Fall Meet. Suppl., Abstract U41C-0037.
  107. Fortier, D., Godin, E., **Kanevskiy, M.Z.**, Allard, M. (2009) Middle Pleistocene (?) buried glacial ice on Bylot Island, Canadian Arctic Archipelago. *Eos Trans. AGU*, 90 (52), Fall Meet. Suppl., Abstract C41A-0438.
  108. O'Donnell, J.A., Harden, J.W., Romanovsky, V.E., **Kanevskiy, M.Z.**, Jorgenson, T., Xu, X., Ewing, S.A., McGuire, D., Shur, Y. (2009) Permafrost controls on soil C storage and turnover in upland black spruce ecosystems of interior Alaska. *Eos Trans. AGU*, 90 (52), Fall Meet. Suppl., Abstract B41C-0338.
  109. Ewing, S.A., O'Donnell, J.A., Paces, J.B., Jorgenson, M.T., **Kanevskiy, M.Z.**, Harden, J.W., Aiken, G., Striegl, R.G. (2009) Permafrost thaw in upland catchments of central Alaska: groundwater connection and landscape evolution as discerned from U isotopes and dissolved organic carbon. *Eos Trans. AGU*, 90 (52), Fall Meet. Suppl., Abstract U41C-0047.
  110. Harden J., Jorgenson T., O'Donnell J.A., Romanovsky V., Kanevskiy M., Fuller C., Wickland K., Ewing S., Koch J., Rodriguez-Mendez P. 2009. Response of soil carbon to permafrost degradation under a warming climate. Peatnet, Prague, Czech Republic.
  111. Ewing, S.A., Paces, J.B., O'Donnell, J.A., **Kanevskiy, M.Z.**, Shur, Y., Jorgenson, M.T., Harden, J., Aiken, G.R., Striegl, R. (2009) Transportation of upland water and carbon dynamics by thawing permafrost in the Alaska Interior. *Eos Trans. AGU*, 90 (22), Jt. Assem. Suppl., Abstract B31A-04.
  112. **Kanevskiy, M.**, Jorgenson, T., Shur, Y., Dillon, M. (2008) Buried glacial basal ice along the Beaufort Sea Coast, Northern Alaska. *Eos Trans. AGU*, 89 (52), Fall Meet. Suppl., Abstract C11D-0531.

113. Shur, Y., **Kanevskiy, M.**, Jorgenson, T., Fortier, D. (2008) Cryofacial analysis of permafrost soils. *Eos Trans. AGU*, 89 (52), Fall Meet. Suppl., Abstract C31E-0554.
114. Fortier, D., **Kanevskiy, M.**, Dillon, M., Stephani, E., Shur, Y. (2008) Classification of cryostructures of basal glacier ice using tomodesitometry. *Eos Trans. AGU*, 89 (52), Fall Meet. Suppl., Abstract C11D-0537.
115. **Kanevskiy, M.**, Shur, Y., Jorgenson, T., Dillon, M. (2008) Ground ice distribution and cryogenic structure of lacustrine sediments in Alaska. In: *Abstracts of AAAS Arctic Science Conference "Growing Sustainability Science in the North: Science, Policy, Education, Legacy in the International Polar Year" (Fairbanks, Alaska, 15-17 September)*: 32.
116. Jorgenson, T., Yoshikawa, K., **Kanevskiy, M.**, Shur, Y., Romanovsky, V., Marchenko, S., Grosse, G., Brown, J., and Jones, B. (2008) Permafrost Characteristics of Alaska. In: *Proceedings of the Ninth International Conference on Permafrost, extended abstracts. June 29 – July 3, 2008, Fairbanks, Alaska*. Kane, D.L. & Hinkel, K.M. (eds). Institute of Northern Engineering, University of Alaska Fairbanks: 121-122.
117. Shur, Y., Jorgenson, T., **Kanevskiy, M.**, Ping C.-L. (2008) Formation of frost boils and earth hummocks. In: *Proceedings of the Ninth International Conference on Permafrost, extended abstracts. June 29 – July 3, 2008, Fairbanks, Alaska*. Kane, D.L. & Hinkel, K.M. (eds). Institute of Northern Engineering, University of Alaska Fairbanks: 287-288.
118. **Kanevskiy, M.**, Shur, Y., Jorgenson, T. (2007) Cryogenic structure of perennially frozen lacustrine sediments. *Eos Trans. AGU*, 88 (52), Fall Meet. Suppl., Abstract C21A-0050.
119. Fortier, D., **Kanevskiy, M.**, Shur, Y. (2007) Ground ice formed after underground thermo-erosion of the permafrost in Alaska. *Eos Trans. AGU*, 88 (52), Fall Meet. Suppl., Abstract C21A-0060.
120. Stephani, E., Fortier, D., **Kanevskiy, M.**, Dillon, M., Shur, Y. (2007) Studies of contemporary glacier basal ice cryostructures to identify buried basal ice in the permafrost: an example from the Matanuska Glacier, Alaska. *Eos Trans. AGU*, 88 (52), Fall Meet. Suppl., Abstract C41A-0044.
121. **Kanevskiy, M.**, Stephani, E., Fortier, D., Jorgenson, T., Lynn, L., Michaelson, G., Ping, C.-L., Shur, Y. (2007) Ground ice of Beaufort Sea coastal plain. In: *Abstracts of Arctic Science Conference "Partnering for Northern Futures: Science, Policy, Education, Legacy (Anchorage, Alaska, 24-26 September)*: 36-37.
122. Dillon, M., Fortier, D., **Kanevskiy, M.**, Shur, Y. (2007) Tomodesitometric analysis of basal ice. In: *Abstracts of Arctic Science Conference "Partnering for Northern Futures: Science, Policy, Education, Legacy (Anchorage, Alaska, 24-26 September)*: 23.
123. Yoshikawa, K., Hander, R., Hinzman, L., **Kanevskiy, M.** (2007) Retrogressive thaw slump in western Alaska. In: *Abstracts of Arctic Science Conference "Partnering for Northern Futures: Science, Policy, Education, Legacy (Anchorage, Alaska, 24-26 September)*: 72.
124. Streletskaaya, I., Vasiliev, A., Drozdov, D.S., **Kanevskiy, M.Z.** (2007) Ice complex of Western Taymyr. *Cryogenic resources of Polar Regions: Int. Conf., Vol. I. Salekhard, June 2007*: 99-102.
125. Fortier, D., **Kanevskiy, M.**, Stephani, E., Dillon, M., Shur, Y. (2007) Facies and cryostructures of glacier basal ice as an object of permafrost study, an example from the Matanuska Glacier, Alaska. Canadian Quaternary Association Conference, Ottawa, June 2007: 75.

126. **Kanevskiy, M.**, Fortier, D., Cysewski, M., Shur, Y., and Jorgenson, T. (2006) Structure of Syngenetic Permafrost: New Data from the CRREL Permafrost Tunnel, Fox, Alaska. *Eos Trans. AGU*, 87 (52), Fall Meet. Suppl., Abstract C51B-0419.
127. Ping, C., Dou, F., Fortier, D., Jorgenson, T., **Kanevskiy, M.**, Lynn, L., Michaelson, G., and Shur, Y. (2006) Pedological Properties of the Eroding Coastline along the Beaufort Sea, Alaska. *Eos Trans. AGU*, 87 (52), Fall Meet. Suppl., Abstract C51A-0400.
128. **Kanevskiy, M.**, Tums koy, V., Fortier, D., Jorgenson, T., and Shur, Y. (2006) Structure and properties of basal ice and subglacial till. In: *Abstracts of Arctic Science Conference "State of the Arctic: Current State of the Arctic – Observations of Arctic Change"* (Fairbanks, Alaska, 2-4 October 2006): 37-38.
129. Fortier, D., **Kanevskiy, M.**, and Shur, Y. (2006) Underground Tunnel in Permafrost and Genesis of Multi-directional Reticulate Ice Veins in Permafrost. In: *Abstracts of AAAS Arctic Science Conference "State of the Arctic: Current State of the Arctic – Observations of Arctic Change"* (Fairbanks, Alaska, 2-4 October 2006): 25.
130. **Kanevskiy, M.**, Streletskaya, I., Vasiliev, A., Gusev, E., Romanenko, F. (2005) Pilot study of cryogenic structure and coastal dynamics at the western shores of Taimyr Peninsula. In: *Proceedings of the Second European Conference on Permafrost*, 12-16 June 2005, Potsdam, Germany: 162.
131. Streletskaya, I., **Kanevskiy, M.** (2005) Cryogenic structure and chemical composition of Quaternary sediments with tabular ground ice in the Marre-Sale area, Western Yamal. In: *Proceedings of the Second European Conference on Permafrost*, 12-16 June 2005, Potsdam, Germany: 169.
132. **Kanevskiy, M.**, Streletskaya, I., and Vasiliev, A. (2005) Cryogenic structure and ice content of coastal sediments, Western Siberia. In: Rachold, V., Lantuit, H., Couture, N., and Pollard, W. (edit) *Reports on Polar and Marine Research*, № 506, Bremerhaven: 69.
133. Streletskaya, I., **Kanevskiy, M.** (2005) Organic carbon in the balance of the coastal erosion sediment input to the Kara Sea. In: *Book of Abstracts, 1<sup>st</sup> Climate and Cryosphere International Science Conference*, 11-15 April 2005, Beijing, China: 253.
134. Romanenko, F., **Kanevskiy, M.**, Streletskaya, I., Vasiliev, A., Gusev, E., Vanshtein, B., Nikolaev, V. (2005) New data on structure of Quaternary deposits of eastern shore of Yenisey Gulf. In: *Abstracts of the International Conference "Priorities in the Earth Cryosphere Research"*, May 25-28, 2005, Pushchino: 336-337.
135. **Kanevskiy, M.**, Streletskaya, I. (2004) The cryogenic structure and tabular massive ground ice in the coastal deposits of Western Yamal (the "Marre-Sale" Meteorological station area) In: *Abstracts of International Conference "Cryosphere of oil-and-gas bearing provinces"*, Tyumen: 96.
136. Vasiliev, A., **Kanevskiy, M.** (2004) Hydrodynamic parameters of the Kara Sea and the response of coastal dynamics to climate changes. In: Rachold, V., Cherkashov, G. (eds) *Reports on Polar and Marine Research*, № 482, Bremerhaven: 216-219.
137. Vasiliev, A., **Kanevskiy, M.**, and Firsov, Yu. (2003) The mechanism of the sea shore erosion at Marre-Sale, Western Yamal. In: Rachold, V., Brown, J., Solomon, S., and Sollid, J. (edit) *Reports on Polar and Marine Research*. № 443: 110-113.
138. Malkova (Ananjeva), G., Drozdov, D., **Kanevskiy, M.**, and Korostelev, Yu. (2003) The coastal research in the area of geocryological station "Cape Bolvanskiy", the estuary of Pechora River. In: Rachold, V., Brown, J., Solomon, S., and Sollid, J. (edit) *Reports on Polar and Marine Research*, № 443, Bremerhaven: 64-65.



139. **Kanevskiy, M.**, Vasiliev, A. (2003) Cryogenic structure of Quaternary sediments and the processes of the sea coast destruction at the Marre-Sale area, Western Yamal (2003) In: *Abstracts of International Conference “Cryosphere as environment of life-support”*, Pushchino: 236-237.
140. Shur, Y., Vasiliev, A., **Kanevskiy, M.**, Maksimov, V., Pokrovsky, S., and Zaikanov, V. (2002) Shore erosion in Russian Arctic. In: *Cold Region Impacts on Transportation and Infrastructure*, ASCE: 736-747.
141. **Kanevskiy, M.** (2002) The quasi-syngeneses and cryogenic structure of Quaternary sediments in Northern Yakutia. In: *Abstracts of International Conference “Extreme phenomena in cryosphere: basic and applied aspects”*, Pushchino: 254.
142. **Kanevskiy, M.** (2002) The cryogenic structure of Quaternary sediments and coast destruction in the cape Bolvansky Nos region In: *Abstracts of International Conference “Extreme phenomena in cryosphere: basic and applied aspects”*, Pushchino: 244.
143. **Kanevskiy, M.** (2000) Far North: the price of the development (2000) In: Semenov, A. (edit) *The Power of Integrity*, Newsletter of IUCN – The World Conservation Union, Office for CIS, №5: 10-15.
144. Zaikanov, V., Zaikanova, I., **Kanevskiy, M.**, Nizovtsev, V., et al. (1993) Environmental map of Moscow region. Moscow, Letopisets (in Russian)
145. Zaikanov, V., **Kanevskiy, M.** (1988) Cryolithogenesis of floodplains of large rivers in Northern Yakutia. In: *Abstracts of scientific seminar of “Cryolithogenesis” section of Lithological committee*, Moscow: 16-17 (in Russian)
146. **Kanevskiy, M.** (1987) Genesis and permafrost structure of thaw-lake basins of Northern Yakutia. In: *Actual problems of hydrogeology, engineering geology and geocryology*, Moscow, VINITI (in Russian)

## **PARTICIPATION IN CONFERENCES AND MEETINGS**

- 2014 – Arctic Change 2014 (Ottawa, Canada, 8-12 December)
- 2014 – AGU Fall Meeting (San Francisco, 15-19 December)
- 2014 – 4th European Conference on Permafrost (EUCOP) (Évora, Portugal, 18-21 June)
- 2013 – AGU Fall Meeting (San Francisco, 9-13 December)
- 2012 – AGU Fall Meeting (San Francisco, 3-7 December)
- 2012 – Tenth International Conference on Permafrost (TICOP) (Salekhard, Russia, June 25-29).
- 2011 – AGU Fall Meeting (San Francisco, 5-9 December)
- 2011 – 54<sup>th</sup> Annual Meeting of the Association of Environmental and Engineering Geologists (AEG) (Anchorage, 19-24 September)
- 2011 – Twenty-first International Offshore and Polar Engineering (ISOPE) Conference (Maui, Hawaii, 19-24 June)
- 2010 – AGU Fall Meeting (San Francisco, 13-17 December)
- 2009 – Polar Conference (Sochi, Russia, 4-8 October)
- 2009 – AGU Fall Meeting (San Francisco, 14-18 December)
- 2009 – AGU Joint Assembly (Toronto, Canada, 24-27 May)
- 2008 – AGU Fall Meeting (San Francisco, 15-19 December)
- 2008 – AAAS Arctic Science Conference “Growing Sustainability Science in the North: Science, Policy, Education, Legacy” (Fairbanks, Alaska, 15-17 September)
- 2008 – Ninth International Conference on Permafrost (NICOP) (Fairbanks, Alaska, June 29 – July 3).

2007 – AGU Fall Meeting (San Francisco, 9–14 December)  
2007 – AAAS Arctic Science Conference “Partnering for Northern Futures: Science, Policy, Education, Legacy (Anchorage, Alaska, 24-26 September)  
2007 – Canadian Quaternary Association Conference (Ottawa, June)  
2006 – AGU Fall Meeting (San Francisco, 11–15 December)  
2006 – AAAS Arctic Science Conference “State of the Arctic: Current State of the Arctic – Observations of Arctic Change” (Fairbanks, Alaska, 2-4 October)  
2005 – 1<sup>st</sup> Climate and Cryosphere International Science Conference (Beijing, China, 11-15 April)  
2005 – Third Conference of Russian Geocryologists (Moscow State University, 1-3 June)  
2004 – 5<sup>th</sup> Arctic Coastal Dynamics International Workshop (Montreal, 13-16 October)  
2003 – 8<sup>th</sup> International Conference on Permafrost (Zurich, 20-25 July)  
2003 – 4<sup>th</sup> Arctic Coastal Dynamics International Workshop (St. Petersburg, 10-13 November)  
2002 – 3<sup>th</sup> Arctic Coastal Dynamics International Workshop (Oslo, 1-5 December)  
2002-2005 – International Meetings on Permafrost (Pushchino, Tyumen)  
1987-1998 – participation in several conferences and exhibitions (Moscow, Nizhny Novgorod)

#### **PERSONAL DATA**

Date of birth: May 19, 1963

Place of birth: Moscow, Russia

Citizenship: Russia

Marital status: married, 2 children