Andrei V Kurbatov

Curriculum Vitae

November 2015

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Research Interests:

- Impacts of volcanism on Earth's climate system, natural hazards, informatics.

Professional Preparation:

- **State University of New York**, Buffalo, New York USA. November, 2000
  - *Ph.D.*: Geology.
  - *Dissertation*: Geodynamics of Kamchatka Peninsula, Russia.
  - *Concentration*: Paleoseismology & tephrochronology.
  - *Advisor*: Marcus I. Bursik.
- **State University of New York**, Buffalo, New York USA. February, 1997
  - *M.A.*: Geology.
  - *Thesis*: Investigation of the May 18, 1980, Blast Surge Deposit at Mount St.Helens Volcano, USA.
  - *Concentration*: Tephrostratigraphy, volcanology, and physical modeling of the blast surge deposits.
  - *Advisor*: Marcus I. Bursik.
- **Moscow State University**, Moscow, Russia. June, 1989
  - *Diploma*: Geology.
  - *Concentration*: Stratigraphic correlation of Jurassic coral-reef formations of southern Uzbekistan Mesozoic limestones based on paleontological and microfacies analyses.
  - *Advisors*: Nikolai V. Beznosov & Irina A. Mikhailova.

Appointments:

- **Climate Change Institute**, University of Maine, Orono, Maine, USA
  - *Associate Research Professor* July 1, 2013 — present
  - *Assistant Research Professor* October 1, 2006 — June 30, 2013
  - *Research Associate* January 15, 2001 — September 30, 2006
- **School of Earth and Climate Sciences**, University of Maine, Orono, Maine, USA
  - *Associate Research Professor* July 1, 2013 — present
  - *Assistant Research Professor* January 1, 2012 — June 30, 2013
- **Department of Geology**, State University of New York, Buffalo, New York USA

- *Research Assistant* January 1994 — December 2000

- **Texaco E & P Inc.**, NAP-West region, Denver, Colorado USA.
  - *Summer intern* May — August, 1998
- **Institute of Volcanic Geology & Geochemistry**, Kamchatka, Russia
  - *Research Scientist* 1991 — 1993
- **Laboratory of Seismology (OMSP)**, Kamchatka, Russia
  - *Scientific Associate* 1992 — 1993
- **Institute of Volcanology**, Kamchatka, Russia
  - *Research Associate* 1989 —1991
- **Geological Survey of Uzbekistan**, Tashkent, Uzbekistan
  - *Field Assistant* July –August, 1988
  - *Field Assistant* May –September, 1987

Field Experience:

- **Tupungatito volcano**, Chile January — February, 2012
  - Ice coring
- Expedition Leader: **Allan Hills**, Antarctica November, 2010 — January, 2011
  - Ice coring and mapping
- **Tupungatito volcano**, Chile February-March, 2010
  - Ice coring
- Expedition Leader: **Allan Hills**, Antarctica November — December, 2009
  - Ice coring and mapping
- **Kangerlussuaq**, Greenland August, 2009
  - Sampling YD boundary
- Expedition Leader: **Kangerlussuaq**, Greenland September, 2008
  - Sampling glacial / interglacial transition
- **Kangerlussuaq**, Greenland July, 2008
  - Sampling YD boundary
- **Detroit Plateau**, Antarctic Peninsula November -December, 2007
  - Recovery of 133 meters ice core as part of IPY project with Chile and Brazil
- **Detroit Plateau**, Antarctic Peninsula February, 2007

  - Ice core site selection and snow sampling
- **East Antarctica**, Antarctica November, 2006- January 2007
  - Ice coring for the US-ITASE
- **Mt. Etna**, Italy September, 2006
  - Ice core drilling in the lava cave
- **Cordillera Darwin**, Chile February, 2006
  - Ice core drilling
- **Cordillera Darwin**, Chile March, 2005
  - Ice core site selection
- **Tasman Glacier**, Mt. Cook, New Zealand October, 2004
  - Ice core drilling project
- **Mt. Moulton and Allan Hills**, Antarctica, January, 2004
  - Blue ice area project
- **Tasman Glacier**, Mt. Cook, New Zealand November, 2003
  - Ice core site selection
- **Santorini volcano**, Santorini Is., Greece June, 2002
  - Field excursion
- Expedition Leader: **Vestnik Bay, Vahil**, Kamchatka, Russia August, 1999
  - Tephrochronological dating of shoreline landforms
- **Northern Hispaniola**, Dominican Republic January 21 - 22, 1999
  - Field excursion
- **Karymsky, Avachinsky volcano**, Kamchatka, Russia July - August, 1997
  - Tephrochronological work
- **San Fransicso Volcanic Field**, Arizona USA July - August, 1996
  - Erosion monitoring network
- **Mount St. Helens volcano**, Washington USA May - June, 1995
  - Blast surge deposit mapping
- **Avachinsky volcano**, Kamchatka, Russia September, 1994
  - Tephrochronological work

- **Mount St. Helens volcano**, Washington USA May, 1994
  - Field reconnaissance
- **Karaginskiy and Bering Islands**, Russia July - September, 1993
  - Tephrochronological dating of shoreline landforms
- **First International Tsunami expedition**, Kamchatka, Russia July, 1993
  - Mapping tsunami deposits in Ust'-Kamchatsk and Khalaktirka Bay areas
- **Paleotsunami and Paleoearthquakes**, Washington, USA June, 1993
  - Field excursion
- **Kreshenii Ognem Cape**, Kamchatka, Russia September, 1992
  - Dating of seismogenic landslide using tephrochronology
- Expedition Leader: **Ksudach, Avachinskiy Volcanoes**, Kamchatka, Russia July - August, 1991
  - Tephrochronological work
- **Shiveluch volcano, Ossora, Ust' Kamchatsk**, Kamchatka, Russia June - September, 1990
  - Tephrochronological work
- **Kluchevskoi and Bezimianny volcanoes**, Kamchatka, Russia January - March, 1990
  - Monitoring of volcanic activity
- **Ebeco volcano**, Paramushir Island, Russia September, 1989
  - Monitoring of volcanic activity and reconstruction of eruption history
- **Ksudach, Zheltovsky, Avachinsky volcanoes**, Kamchatka, Russia June - August, 1989
  - Tephrochronological work
- **Dinosaur tracks in Central Asia**, Uzbekistan, Turkmenistan, Tadzhikistan September, 1988
  - Field excursion
- **South West Gissar Mountains**, Uzbekistan June - August, 1988
  - Geological mapping
- **Kandalaksha Bay**, White Sea, Russia September, 1987
  - Biology Field Camp

- **South West Gissar Mountains**, Uzbekistan June - August, 1987
  - Stratigraphy and paleontology
- **Scientific Cruise onboard the 'Feodosija' ship**, Black Sea, Russia May, 1987
  - Marine Geology Field Camp
- **Geological Mapping**, Moscow Region, Russia June, 1986
  - Field Camp
- **Satino training and research station**, Moscow Region, Russia August, 1985
  - Field Camp
- **Russian platform - Crimea**, Russia, Ukraine June, 1985
  - Geology Field Camp

Teaching

- **ERS 602**, Volcanoes & Climate Spring, 2014
- **ERS 602**, Atmospheric chemistry Fall, 2011
- **ERS 221**, Geologic Problems I (Independent Study) Fall, 2011
  - Ashley Suitter
- **REU**, Research Experience for Undegraduates Summer, 2011
  - Daniel Lesser
- **ERS 602**, Independent study: Selected topics in Geology Fall, 2010
  - Peter Acton
- **Capstone project**, Independent study: Selected topics in Geology Fall, 2010
  - Eileen Carr
- **ERS 602**, Independent study: Selected topics in Geology Fall, 2009
  - Kristin Schild
- **INT 500**, Visiting speaker seminar series Fall, 2009
  - Invited lecture
- **ERS 602**, Introduction to numerical data analysis Spring, 2009
- **GLY 407** Geological Field Mapping, (UB Field Camp in Colorado, Arizona, Utah) May—June, 2000
  - Teaching Assistant
- **GLY 606**, Digital Data Analysis Spring, 1999
  - Co-Instructor

Funded Research Projects

- **National Science Foundation (NSF)**
  - **Co-PI, PLR-1443306** **8/31/2015—7/30/2018**
    Collaborative Research: Window into the World with 40,000-year Glacial Cycles from Climate Records in Million Year-old Ice from the Allan Hills Blue Ice Area. $168,367.
  - **Co-PI, PLR-1443461** **9/01/2015—8/31/2016**
    Collaborative Research: Allan HILLs Englacial Site (AHILLES) Selection. $35,594.
  - **Co-PI, PLR-1417476** **9/1/2014 — 8/31/2016**
    Collaborative Research: Collaborative Research: Investigating geochemical signatures in Greenland ice of a possible extraterrestrial impact during the Younger Dryas climate event. $33,585.
  - **Co-PI, AGS-1401899** **6/1/2014 — 5/31/2017**
    Collaborative Research: P2C2–Pleistocene/Holocene Climate Reconstruction from a Pamir High Resolution Deep Ice-Core. $590,830.
  - **PI, PLR-1203640** **9/1/2012 — 8/31/2015**
    ACC–Searching for Abrupt Climate Change Precursors Using Ultra High Resolution Ice Core Analysis. $797,560.
  - **PI, PLR-1142007** **8/1/2012 — 7/31/2016**
    AntT–Collaborative Research: Developing an Antarctic Tephra Database for Interdisciplinary Paleoclimate Research. $365,095.
  - **Co-PI, PLR-1042883** **6/15/2011 — 5/31/2015**
    RICE–Roosevelt Island Climate Evolution Project: US Deep Ice Core Glaciochemistry Contribution. $815,937.
  - **Co-PI, EAR-1027960** **10/01/2010 — 9/30/2013**
    CDI-Type I: CiiWork–An interactive workbench for integration, exploration, and analysis of chronological information. $451,743.
  - **PI, PLR-0838843** **7/1/2009 — 6/30/2013**
    2MBIA–Collaborative Research: Exploring A 2 Million+ Year Ice Climate Archive-Allan Hills Blue Ice Area. $407,668.
  - **Co-PI, ANT-0837883** **6/1/2009 — 5/31/2013**
    ARRA–Collaborative Research: Antarctic Climate Reconstruction Utilizing the US ITASE ICE Core Array. $725,700.
  - **Co-PI, ATM-0754644** **8/15/2008 — 8/14/2011**
    AICA Collaborative Research: Asian Ice Core Array–Reconstruction of Past Physical and Chemical Climate over Asia. $415,336.
  - **Co-PI, ANT-0636740** **7/1/2007 — 6/30/2011**
    Collaborative Research: Microparticle/tephra analysis of the WAIS Divide ice core. $591,434.
  - **Co-PI, ANT-0636506** **7/1/2007 — 6/30/2010**
    Collaborative Proposal: 2000+ Year Detailed, Calibrated Climate Reconstruction from a South Pole Ice Core Set in an Antarctic - Global Scale Context. $203,858.

- **Co-PI, ARC-240878** **5/15/2003 — 5/14/2006**
  A New Mt. Logan Ice Core Record - Change in Climate and Chemistry of the Atmosphere for the North Pacific. $423,407.
- **Co-PI, ATM-139491** **10/1/2002 — 9/31/2005**
  Paleoclimate from Mount Everest Ice Cores. $397,005.

- **National Oceanographic & Atmospheric Administration (NOAA)**
  - **Co-PI, Office of Global Programs** **9/01/2005 — 8/31/2006**
    Abrupt Climate Change, Part II.
  - **Co-PI, Office of Global Programs** **9/01/2004 — 8/31/2005**
    Abrupt Climate Change, Part I.
- **W.M. Keck Foundation**
  - **Co-PI,** **7/1/2008 — 7/30/2011**
    Major Advances in the Field of Climate Change Reconstruction Using Ice Cores
- **The Heinz Endowments**
  - **Co-PI,** **10/25/2011 — 10/25/2013**
    BreatheProject & 10 Green

Professional Associations

- **American Geophysical Union** 1994 — present
- **Geographical Society of Russia** 1989 — 1993

Honors and Awards

- **Antarctica Service Medal**, NSF March 1, 2006
- **Graduate Pegrum Award**, Department of Geology, SUNY at Buffalo May, 2000
- **Director's List**, Intensive English Language Institute, SUNY at Buffalo May, 1994
- **Outstanding Young Scientist Research award**, Institute of Volcanology November, 1992

Computer Skills

- **Languages**: C, C++, Java, LaTeX, Matlab, NCL, Perl, Python, R.
- **Applications**: Generic Mapping Tools (GMT), ERDAS Imagine, common database, spreadsheet, and presentation software.
- **Operating Systems**: Linux, Mac OS X, Windows

Languages

- Fluent in Russian and English
- Introductory level of Spanish

Special Training

- NCL workshop, University of Maine, Orono, ME April 23-25, 2014
- Polar bear safety training for Arctic researchers seminar by Andy McMullen with BearWise Inc., organized by Polar Field Services Inc. April 19 , 2014
- NCL workshop, NCAR, Boulder, CO June, 2013

- Global Positioning System (GPS), UNAVCO November, 2009
- Snowmobile safety training, United States Antarctic Program and 2010 November, 2009
- Ground Penetrating Radar (GPR), CRELL September, 2009
- First Aid training Red Cross June, 2009
- "Crevasse Rescue", United States Antarctic Program November, 2006
- "Snow School", United States Antarctic Program January, 2004
- Java Programming, UNIX-SL275, SUN Microsystems June 21 - 26, 1998
- Field Work Safety, Moscow State University August, 1985
- Nuclear, Chemical, Biological and Natural disaster management, Moscow State University 1984 — 1985

Synergistic Activities

- Actively involved in incorporating research results of the Climate Change Institute into development of cyberinfrastructure that will simplify public access to published CCI results and data sets.

  p301dx web site: http://cs.umaine.edu/~chaw/p301/;
  IceReader web site: http://www.icereader.org;
  10green web site: http://www.10green.org.
  CCI ice core data: http://www.icecoredata.org.

- Served on the 2015 NSF Graduate Research Fellowship Program Panel.
- Served on the 2015 University of Maine Research Faculty Committee.
- Member of the Ice core Working Group (ICWG).
- US Coordinator for Polar to Tropical Connections project.

  PTC web site: http://www.polartropical.org.

- Co-convener of AGU Session December, 2011.

  V11D Tephra in Ice Cores: Characterization, Transport, and Sources.

- Organizer of NCL workshop at the University of Maine (April 23-25, 2014).
- Co-organizer of Harold W. Borns Symposium, University of Maine (2009-2012).

  Harold W. Borns Symposium web site:
  http://climatechange.umaine.edu/research/overview

- Actively participated in high school and UMaine student tours of ice core facilities of Climate Change Institute.
- Featured in "Last Extinction". Produced by NOVA, PBS airdate: March 31, 2009.

  web site http://www.pbs.org/wgbh/nova/clovis/.

Graduate and Postdoctoral Sponsors

Marcus I. Bursik, State University of New York at Buffalo, NY
Gregory A. Zielinski, Climate Change Institute, University of Maine

Graduate Student Advisees

Nicole Spaulding (Ph.D., September 1, 2009—April 25, 2013)
Donna Kalteyer (M.S., August 1, 2013—expected, 2015)
Sarah Wheatley (M.S., June 15, 2015—expected, 2017).

Graduate committee member

Elena Korotkikh (M.S. 2007), Sharon Sneed (Ph.D. 2013), Bess Koffman (Ph.D. 2013), Thomas Beers (M.S. 2014), Skylar Haines (M.S., 2015), Mariusz Potocki (Ph.D., expected 2016), Elena Korotkikh (Ph.D., expected 2016).

Undergraduate committee member

Nathan Dunn (Spring 2015).

Meetings and Workshops

- **Bicentenary of the great Tambora eruption.** **April 7—-10, 2015**
  International Conference on Volcanoes, Climate, and Society, University of Bern, Switzerland.
- **Tephra 2014 Workshop, Portland, OR** **Aug. 4 —-7, 2014**
- **IDPO Community Workshop on Ice Coring, UC-Irvine, CA** **Feb. 26—-27, 2014**
- **South Pole Ice Core Workshop, UC-Irvine, CA** **Feb. 25 —-26, 2014**
- **Cyberinfrastructure for Polar sciences, Minneapolis, MN** **Sept. 10 —-12, 2013**
- **RICE project workshop, Wellington, New Zealand** **July 22 —-24, 2013**
- **Harold W. Borns symposium, Orono, Maine USA** **Apr. 22 —-23, 2013**
- **South Pole planning workshop, Boulder, Colorado USA** **Feb. 21 —-22, 2013**
- **WAIS cores, La Jolla, CA USA** **Sept. 10 —-12, 2012**
- **Harold W. Borns symposium, Orono, Maine USA** **Apr. 5 —-6, 2012**
- **Ice Drilling Science Community planning workshop** **Apr. 15 —16, 2011**
- **Harold W. Borns symposium, Orono, Maine USA** **Apr. 7 — 8, 2011**
- **CASA-PTC meeting, Castine, Maine USA** **Jun. 14 — 16, 2010**
- **Harold W. Borns symposium, Orono, Maine USA** **May 6 — 7, 2010**
  Is tropical tephra present in the WAIS Divide ice core?
- **Harold W. Borns symposium, Orono, Maine USA** **May 7 — 8, 2009**
  Quest for the Oldest Ice on Earth.
- **AICA meting, San Francisco, CA USA** **Dec. 13, 2008**
  Recovery ice core from Fedchenko glacier, Pamir, Tadzhikistan.
- **ITASE meting, Castine, Maine USA** **Sep. 3 — 6, 2008**
  Update on CASA initiative.

- **Harold W. Borns Symposium, Orono, Maine USA** **May 8 — 9, 2008**
  Update on CASA (Climate of Antarctica and Southern America) initiative.
- **Agassiz Symposium, Orono, Maine USA** **May 10 — 11, 2007**
  Searching for the new Northern Hemisphere climate proxies.
- **Volcanic Flows and Falls, Buffalo, New York USA** **May 11 — 12, 2006**
  Tephra Study in the Siple Dome A Ice Core, Antarctica.
- **WAIS Meeting, Algonkian Meeting Center in Sterling, Virginia USA** **Sep. 28 — Oct. 1, 2005**
  Can sulfate signatures in ice cores verify the source volcano?
- **Agassiz Symposium, Orono, Maine USA** **May 5 — 6, 2005**
  Siple Dome A tephra at 1261 C.E. and possible link with 1259 event.
- **Siple Dome Principal Investigator Meeting, Reno, NV** **Feb. 24, 2004**
  Volcanic ash records in the Siple Dome Ice Core.
- **ITASE Workshop, Castine, Maine USA** **Jun. 1 — 3, 2003**
- **Agassiz Symposium, Orono, Maine USA** **May 8 — 9, 2003**
  Volcanic Signals in the SDMA Ice Core, Antarctica.
- **Antarctic Proposal Workshop for New Investigators** **Aug. 26 — 27, 2002**
  NSF, Arlington, Virginia USA.
- **Agassiz Symposium, Orono, Maine USA** **May 20 — 21, 2002**
  Explosive Volcanism Recorded in Siple Dome Ice Core, Antarctica.
- **Siple Dome Science Meeting, Arlington, Virginia USA** **Mar. 18 — 19, 2002**
- **AGU Chapman Conference: Volcanism and the Earth's Atmosphere** **June, 2002**
  Santorini, Greece.
- **Volcanic record in the Siple Dome Ice Cores. Science Meeting,** **April 19-20, 2001**
  Biosphere-2, Arizona USA.

Publications

Research Articles

1. Higgins, J. A., A. V. Kurbatov, N. E. Spaulding, E. J. Brook, D. S. Introne, L. M. Chimiak, Y Yan, P. A. Mayewski, and M. L. Bender (2015). Atmospheric composition 1 million years ago from blue ice in the Allan Hills, Antarctica. *PNAS* **112**(22), 6887–6891.
2. Sneed, S. B., P. A. Mayewski, W. Sayre, M Handley, A. V. Kurbatov, K. C. Taylor, P. Bohleber, D. Wagenbach, T. Erhardt, and N. E. Spaulding (2015). New LA-ICP-MS cryocell and calibration technique for sub-millimeter analysis of ice cores. *Journal of Glaciology* **61**(226), 233–242.
3. Koffman, B. G., K. J. Kreutz, D. J. Breton, E. J. Kane, D. A. Winski, S. D. Birkel, A. V. Kurbatov, and M. J. Handley (2014). Centennial-scale variability of the Southern Hemisphere westerly wind belt in the eastern Pacific over the past two millennia. *Clim. Past* **10**, 11256–1144.
4. Korotkikh, E. V., P. A. Mayewski, D. Dixon, A. V. Kurbatov, and M. Handley (2014). Recent increase in Ba concentrations as recorded in a South Pole ice core. *Atmospheric Environment* **89**, 683–687.

5. Mayewski, P. A., S. B. Sneed, S. D. Birkel, A. Kurbatov, and K. A. Maasch (2014). Holocene warming marked by abrupt onset of longer summers and reduced storm frequency around Greenland. *Journal of Quaternary Science* **29**(1), 99–104.
6. Koffman, B. G., K. J. Kreutz, A. V. Kurbatov, and N. W. Dunbar (2013). Impact of known local and tropical volcanic eruptions of the past millennium on the WAIS Divide microparticle record. *Geophysical Research Letters* **40**(17), 4712–4716.
7. Kraus, S., A. Kurbatov, and M. Yates (2013). Geochemical signatures of tephras from Antarctic Peninsula volcanoes. *Andean Geology* **40**(1), 1–40.
8. Spaulding, N. E., J. A. Higgins, A. V. Kurbatov, M. L. Bender, S. A. Arcone, S. Campbell, N. W. Dunbar, L. M. Chimiak, D. S. Introne, and P. A. Mayewski (2013). Climate archives from 90 to 250 ka in horizontal and vertical ice cores from the Allan Hills Blue Ice Area, Antarctica. *Quaternary Research* **80**(3), 562–574.
9. Breton, D., B. Koffman, A. Kurbatov, and G. Kreutz K.J.and Hamilton (2012). Quantifying Signal Dispersion in a Hybrid Ice Core Melting System. *Environmental Science and Technology* **46**(21), 11922–11928.
10. Mayewski, P. A., K. A. Maasch, D. Dixon, S. B. Sneed, R. Oglesby, E. Korotkikh, M. Potocki, B. Grigholm, K. Kreutz, A. V. Kurbatov, N. Spaulding, J. C. Stager, K. C. Taylor, E. J. Steig, J. White, N. A. N. Bertler, I. Goodwin, J. C. Simões, R. Jaña, S. Kraus, and J. Fastook (2012). West Antarctica's sensitivity to natural and human-forced climate change over the Holocene. *Journal of Quaternary Science* **28**(1), 40–48.
11. Spaulding, N., V. Spikes, G. Hamilton, P. Mayewski, N. Dunbar, R. Harvey, J. Schutt, and A. Kurbatov (2012). Ice motion and mass balance at the Allan Hills blue ice area, Antarctica, with implications for paleoclimate reconstructions. *Journal of Glaciology* **58**(208), 399–406.
12. Dunbar, N. W. and A. V. Kurbatov (2011). Tephrochronology of the Siple Dome ice core, West Antarctica: correlations and sources. *Quaternary Science Reviews* **30**(13-14), 1602 – 1614.
13. Korotkikh, E. V., P. A. Mayewski, M. J. Handley, S. B. Sneed, D. S. Introne, A. V. Kurbatov, N. W. Dunbar, and W. C. McIntosh (2011). The last interglacial as represented in the glaciochemical record from Mount Moulton Blue Ice Area, West Antarctica. *Quaternary Science Reviews* **30**(15-16), 1940–1947.
14. Kurbatov, A. V., P. A. Mayewski, J. P. Steffensen, A. West, D. J. Kennett, J. P. Kennett, T. E. Bunch, M. Handley, D. S. Introne, S. S. Que Hee, C. Mercer, M. Sellers, F. Shen, S. B. Sneed, J. C. Weaver, J. H. Wittke, T. W. Stafford Jr., J. J. Donovan, S. Xie, J. J. Razink, A. Stich, C. R. Kinzie, and W. S. Wolbach (2010). Discovery of a nanodiamond-rich layer in the Greenland ice sheet. *Journal of Glaciology* **56**(199), 747–757.
15. Bursik, M., S. E. Kobs, A. Burns, O. Braitseva, L. Bazanova, I. Melekestsev, A. V. Kurbatov, and D. Pieri (2009). Volcanic plumes and wind: Jetstream interaction examples and implications for air traffic. *Journal of Volcanology and Geothermal Research* **186**, 60–67.
16. Grigholm, B, P. A. Mayewski, A. V. Kurbatov, G. Casassa, A. Staeding, M. Handley, S. Sneed, and D. Introne (2009). Chemical composition of fresh snow from Glaciar Marinelli, Tierra del Fuego, Chile. *Journal of Glaciology* **55**(193), 769–776.
17. Kurbatov, A. V., G. A. Zielinski, N. W. Dunbar, P. A. Mayewski, E. A. Meyerson, S. B. Sneed, and K. C. Taylor (2006). A 12,000 year record of explosive volcanism in the Siple Dome Ice Core, West Antarctica. *Journal of Geophysical Research (Atmospheres)* **111**(10), D12307.
18. Bertler, N. et al. (2005). Snow chemistry across Antarctica. *Annals of Glaciology* **41**(1), 167–179.
19. Pruett, L. E., K. J. Kreutz, M. Wadleigh, P. A. Mayewski, and A. Kurbatov (2004). Sulfur isotopic measurements from a West Antarctic ice core: implications for sulfate source and transport. *Annals of Glaciology* **39**, 161–168.

20. Taylor, K., R. B. Alley, D. A Meese, M. Spencer, E. Brook, N. W. Dunbar, R. Finkel, A. J. Gow, A. V. Kurbatov, and G. Lamorey (2004). Dating the Siple Dome (Antarctica) ice core by manual and computer interpretation of annual layering. *Journal of Glaciology* **50**(170), 453–461.
21. Bursik, M. I., A. V. Kurbatov, M. F. Sheridan, and A. W. Woods (1998). Transport and deposition in the May 18, 1980, Mount St. Helens blast flow. *Geology* **26**(2), 155–158.
22. Melekestsev, I. and A. Kurbatov (1998). Frequency of Large Paleoearthquakes at the Northwestern Coast of the Bering Sea and in the Kamchatka Basin During Late Pleistocene/Holocene Time. *Volc. Seis.* **19**, 257–267.
23. Woods, A., M. Bursik, and A. V. Kurbatov (1998). The interaction of ash flows with ridges. *Bulletin of Volcanology* **60**(1), 38–51.
24. Minoura, K., V. Gusiakov, A. Kurbatov, S. Takeuti, J. Svendsen, S. Bondevik, and T. Oda (1996). Tsunami sedimentation associated with the 1923 Kamchatka earthquake. *Sedimentary Geology* **106**(1-2), 145–154.
25. Melekestsev, I., A. Kurbatov, M. Pevzner, and L. Sulerzhitskiy (1995). Prehistoric Tsunamis and Large Earthquakes on the Kamchatskiy Peninsula, Kamchatka, Based on Tephrochronological Data. *Volc. Seis.* **16**(4-5), 449–460.
26. Melekestsev, I., V. Dvigalo, V. Kirianov, A. Kurbatov, and I. Nesmachnyi (1994a). Ebeko Volcano, Kuril Islands: Eruptive History and Potential Volcanic Hazards. Part I. *Volc. Seis.* **15**(3), 339–354.
27. Melekestsev, I., V. Dvigalo, V. Kirianov, A. Kurbatov, and I. Nesmachnyi (1994b). Ebeko Volcano, Kuril Islands: Eruptive History and Potential Volcanic Hazards. Part II. *Volc. Seis.* **15**(4), 411–430.

Submitted papers

1. Korotkikh, E., P. A. Mayewski, A. V. Kurbatov, M Handley, and S. B. Sneed (2015 in review). Natural and anthropogenic source arsenic partitioned using a 2060 year long South Pole ice core. *Scientific Report*, SREP–15–24125.
2. Potocki, M., P. A. Mayewski, A. V. Kurbatov, J. Simoes, D. A. Dixon, E. Korotkikh, M. J. Handley, I. Goodwin, and R. Jaña (in review., 2015). Recent increase in Antarctic Peninsula ice core uranium concentrations. *Atmospheric Environment*.
3. Iverson, N. A., D. Kalteyer, N. W. Dunbar, A. Kurbatov, and M. Yates (in review., QUAGEO-D-15-00069, 2015). "Advancements and best practices for analysis and correlation of tephra and cryptotephra in ice". Quaternary Geochronology.

Book chapters

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