

## Andrei G. Lapenis

### Contact Information

- Professor, Director of Biodiversity Conservation and Policy program, Department of Geography and Planning, University at Albany, SUNY
- Email: andreil@albany.edu | Phone: 518.442.4191  
ORCID: 0000-0002-2135-3636  
Also indexed as: Andrei G. Lapenas

### Professional Summary

Professor with 30 years' experience, in oceanography, marine chemistry, climatology, and biogeochemistry. \$10M in external funds. Demonstrated leadership in academic and research settings with a strong track record in developing and executing high-impact research projects. Committed to advancing ocean and coastal conservation through innovative research, strategic partnerships, and effective communication of scientific findings to diverse audiences. Focuses on climate change impact on oceanic and terrestrial carbon cycle and ecosystems.

### Education

- Ph.D. in Climatology and Marine Chemistry, State Hydrological Institute Department of Climate Change, St Petersburg, Russia
- M.S. in Oceanography, State St. Petersburg (Leningrad) University, St Petersburg, Russia

### Professional Experience:

- **Full Professor (2015- present), Associate Professor (2004-2015), Associate Professor (1996-2004):** Performs research in climate change and global carbon cycle, develops innovative instrumentation for *in situ* biochemical analysis. Please, see attached lists of publications, projects, and external grants.
- **Director, Biodiversity Conservation and Policy Program: (2018-present)**  
Spearheaded multidisciplinary research initiatives, emphasizing conservation efforts and policy development. Supervised more than 30 MS and PhD students. Manages \$1.5 M Biodiversity Conservation and Policy endowment fund. Manages \$400K MOU between UAlbany and NYS Department of Environmental Conservation for paid internships for UAlbany Students.
- **Chair, Department of Geography and Planning, University at Albany, SUNY (2017-2023):** Led the department of 10 fulltime and 20 parttime faculty, fostering academic excellence and research innovation. Managed annual operations, including budget administration and team supervision, fund raising campaigns and donors' engagement.
- **Research Scientist/Post Doctorate Affiliate, Earth Systems Group, Department of Applied Sciences, NYU (1992-1996):** Contributed to pioneering research at the interface of climatology and biogeochemistry, focusing on climate change impacts on marine carbon cycle and climate-ecosystems feedbacks. Developed innovative "paleoclimate calibration" technique for testing mathematical models of global climate.

## **Selected Contributions**

- Advanced global knowledge in the carbon cycle and environmental conservation through the development and execution of comprehensive research strategies.
- Pioneered a new research field in soil science, focusing on the quantitative analysis and comparison of archived soil samples.
- Led soil and forest research expeditions in southern Russia and northern China, importing over a ton of soil samples to the USA under USDA permit.
- Secured approximately \$10M in external research funding, showcasing expertise in grant writing and project management.
- Awarded a \$5M USDA grant for a 5-year project on urban forest restoration and conservation efforts in October 2023.
- Published extensively in high-impact journals (e.g., Nature, Global Change Biology) and contributed to the Intergovernmental Panel on Climate Change, enhancing understanding of the carbon cycle's response to climate change.
- Spent over a year at sea, participating in expeditions to the Northern Atlantic (RSV PROFESSOR VIZE), Gulf of Guinea (RV NECTON), and Baltic Sea (RV VIKHREVOI).
- Delivered invited talks at international conferences, effectively communicating complex scientific concepts to diverse stakeholders.
- Organized several international conferences on Global Warming and Climate Change.
- Co-founded the Environmental Sustainability Committee at UAlbany, promoting campus-wide sustainability efforts.
- Collaborated with UAlbany faculty to establish a BS major in Environmental Science.

## **Skills**

- Strong leadership and team management capabilities
- Proficient in the development and application of advanced research technologies
- Excellent oral and written communication skills
- Ability to develop and manage interdisciplinary research projects

## **Professional Affiliations**

- American Association of Geographers
- American Geophysical Union
- Ecological Society of America
- European Geoscience Union

## **Certifications**

- CITI Certification 32387777 (Human subject research, PI/Advisor)
- USDA Soil Permit S-57767
- Certified competitive racing sailor. American Sailing Association.

**Publications** IN ENGLISH in peer reviewed journals (Total number of publications in academic JOURNALS and METINGS PROCEEDINGS in English and Russian >100).

1. Xianliang Zhang, Ruben Manzanedo, Guobao Xu, Andrei G. Lapenis. 2024 Achieving sustainable development goal 13: resilience and adaptive capacity of temperate and boreal forests under climate change. Editorial article. *Frontiers in Forests and Global Change*. 4 February, 2024. Volume 7 - 2024 |
2. Lapenis, A., and Yurganov, L. 2023. Increase in Arctic Oscillations explains most interannual variability in Russia's wildfires. *Frontiers in Forests and Global Change*, 6, 1188057. doi:10.3389/ffgc.2023.1188057.
3. Robinson, G. R., Lawrence, G. B., & Lapenis, A. G. 2022. Data: Radial growth decline of white spruce (*Picea glauca*) during hot summers without drought (preliminary results from a study site south of a boreal forest border). *Dryad*. DOI: 10.5061/dryad.6hdr7sr08
4. Lapenis, A.G., Robinson, G., Lawrence C.B. 2021. Radial Growth Decline of White Spruce (*Picea glauca*) During Hot Summers without Drought: Preliminary Results from a Study Site South of a Boreal Forest Border. *Canadian Journal of Forest Research*. 14 January 2022
5. Rafael Poyatos et al. (138 authors). 2021. Global transpiration data from sap flow measurements: the SAPFLUXNET database. *Earth System Science Data*. 13, 2607–2649, <https://doi.org/10.5194/essd-13-2607-2021>
6. Michael Natole Jr., Yiming Ying, Alexander Buyantuev, Andrei Lapenis. 2021. Patterns of Mega-Forest Fires in East Siberia will become Less Predictable with Climate Warming. *Environmental Advances*. doi: <https://doi.org/10.1016/j.envadv.2021.100041>
7. Lapenis, A.G. 2020. A 50-Year-Old Global Warming Forecast That Still Holds Up. November 2020. *Eos Transactions American Geophysical Union* 101(101).DOI:10.1029/2020EO151822
8. Maurizio Mencuccini, Teresa Rosas, L. Rowland, Lapenis Andrei, Jordi Martinez Vilalta. 2019. Leaf economics and plant hydraulics drive leaf : wood area ratios. *New Phytologist* 224(4) DOI:10.1111/nph.15998
9. Lapenis, A.G., Lawrence, G.B., Buyantuev, A. Jiang, S., Sullivan, T., McDonnell, T., Bailey, S. 2017. A Newly Identified Role of the Deciduous Forest Floor in the Timing of Green-Up. *Journal of Geophysical Research: Biogeosciences* 122(11). DOI: <https://doi.org/10.1002/2017JG004073>
10. Shortle, W. C., K. T. Smith, and A. G. Lapenis. 2017. Dendrochemical evidence for soil recovery from acidic deposition in forests of the northeastern U.S. with comparisons to the southeastern U.S. and Russia, *Chemosphere*, 181, 786–796, doi:10.1016/j.chemosphere.2017.04.132
11. Lapenis A.G. , H.Henry, M. Vuille, J. Mower. 2014. Climatic Factors Controlling Plant Sensitivity to Warming. *Climatic Change*. ISSN: 0165-0009, DOI: 10.1007/s10584-013-1010-2.
12. Lawrence, G.B., Fernandez, I.J., Richter, D.B., Ross, D.S., Hazlett, P.W., Bailey, S.W., Oiumet, R. Warby, A.F., Johnson, A.H., Lin, H., Kaste, J.M., Lapenis, A.G., Sullivan, T.J. 2013. Measuring environmental change in forest ecosystems by repeated soil

sampling: a North American perspective. *Journal of Environmental Quality*. doi:10.2134/jeq2012.0378

13. Lapenis, A.G., G. B. Lawrence, A. Heim, Chengyang Zheng, W. Shortle. 2013. Climate warming shifts carbon allocation from stemwood to roots in calcium-depleted spruce forests. *Global Biogeochem. Cycles*, doi: 10.1029/2011GB004268
14. Lawrence, G.B., Shortle, W.C., David, M.B., Smith, K.T., Warby, R.A.F., Lapenis, A.G. 2012. Early indications of soil recovery from acidic deposition in U.S. red spruce forests. *Soil Science Society of America Journal*. doi: 10.2136/sssaj2011.0415. Vol. 76 No. 4, p. 1407-1417
15. Lapenis, A.G. 2010. *Global Carbon Cycle*. Encyclopedia of Geography. SAGE, DOI: 10.4135/9781412939591. ISBN: 9781412956970, p. 326-330
16. Abakumov, E.V., Aparin, B.F, Lapenis A. G., Kosaki T. 2009. Investigation of organic matter changes in Typical Chernozem for 30 years period on the base of soil monoliths. *Proceedings of St. Petersburg University*. p 113-123
17. Hammes, K. Torn, M.S. Lapenis, A.G., Schmidt M.W.I. 2008. Centennial black carbon turnover observed in a Russia steppe soil. *Biogeosciences*, 5 (doi:10.5194/bg-5-1339-2008), p 1339-1350
18. Lapenis, A.G, GB Lawrence, SW Bailey, BF Aparin, AI Shiklomanov, NA Speranskaya, MS Torn, M Calef. 2008. [Climatically driven loss of calcium in steppe soil as a sink for atmospheric carbon](#). *Global Biogeochemical Cycles*. DOI: 10.1029/2007GB003077.
19. Shvidenko, A., Nelson, S., Shepaschenko, D, Lapenis, A. 2005. New estimates of live biomass and net primary productivity of Russian forest: A footprint of climate change? *Proceedings of 7<sup>th</sup> International Conference on CO2*, 25-29 September 2005, Denver, Colorado, USA, 157-159
20. Lapenis, A.G., Shvidenko, A., Shepaschenko, D., Nilsson, S., Aiyyer, A. 2005. Acclimation of Russian forests to recent changes in climate. *Global Change Biology*, 11, DOI: 10.1111/j.13652486.2005.001069.x p 2090-2102
21. Lawrence, G. B., Lapenis, A.G., Berggren, D., Aparin, B., Smith, K., Shortle, W.C., Balley, S. W., Varlyguin, D.L., Babikov, B. 2005. Climate Dependency of Tree Growth Suppressed by Acid Deposition Effect on Soils in Northwest Russia. *Environmental Science and Technology*, 39, 20042010.
22. Lapenis, A.G. 2004. Biogeochemical Selection of Organisms. In “Scattered elements in boreal forests”. Moscow, Nauka, pp 290-300 ISBN — 5-02-033044
23. Lapenis, A.G., Lawrence, G.B., Andreev, A. A., Bobrov, A.A, Torn, M.S. W. Harden. 2004. Acidification of forest soil in Russia: From 1893 to Present. *Global Biogeochemical Cycles*. V 18. GB1037, doi:10.1029/2003GB002107
24. Lapenis, A.G. 2002. “Directed Evolution of Biosphere: Biogeochemical Selection or Gaia?” *The Professional Geographer*. 54(3), pp 379-391
25. Lapenis, A., Hoffert, M. I., Groisman, P., & Anisimov, O. A. 2002. Mikhail Ivanovich Budyko (1920–2001). *Eos, Transactions, American Geophysical Union*, 83(21), 233. DOI: 10.1029/2002EO000164
26. Torn, M., Lapenis, A.G., Harden, J., Timofeev, A., Babikov, B.V., Savitzkaya, S. 2002. “Soil carbon cycling in the Russian Steppe: Radiocarbon analysis of modern and historic Russian soils.” *Global Change Biology*. 8, 941-953.

27. Glavanakov, S., D. White, Caraco, T., Lapenis, A.G., G. Robinson, Szymanski, B., Maniatty, W.A. 2001. "Lyme disease in New York State: spatial pattern at a regional scale" *American Journal of Tropical Medicine and Hygiene*, 65 (5), pp. 538-545. DOI: 10.4269/ajtmh.2001.65.538
28. Lapenis, A.G., Torn, M.S., Harden, J.W., Holloker, K., Babikov, B., Timofeev, A.I., Hornberger, M.I., Nattis, R. 2000. "Scientists Unearth Truth about Soil Contamination" *EOS, Transactions, AGU* 81, 6, pp. 53, 59-60.
29. Lapenis, A.G. 1998 "Arrhenius and the Intergovernmental Panel on Climate Change". *EOS, Transactions, AGU*, 79, 22. DOI: 10.1029/98EO00206
30. Lapenis, A.G., Klene, A. 1997, "Conveyor of live germs?". *EOS, Transactions, AGU*, 78, 34. DOI: 10.1029/97EO00232
31. Kheshgi, H.S., Schlessinger, M., Lapenis, A.G. 1997. "Comparison of Paleotemperature Reconstructions as Evidence for the Paleoanalogue Hypothesis". *Climatic Change*, 35, pp. 123-131.
32. Kheshgi, H. S. and Lapenis, A.G. 1996. "On the accuracy of the Russian paleoclimate reconstructions", *Palaeogeography, Palaeoclimatology, Palaeoecology* 121, pp. 221-237.

#### Selected PUBLICATIONS IN PEER-REVIEWED JOURNALS (1981-1994)

33. Kheshgi, H.S., Flannery, B.P., Hoffert, M.I., Lapenis, A.G. 1994. "The effectiveness of marine CO<sub>2</sub> disposal", *Energy (Elsevier)* 19, 9, pp. 967-974. DOI: 10.1016/0360-5442(94)90082-5
34. Lapenis, A.G., Shabalova, M.V. 1994. "Global Climate Changes and Moisture Conditions in the Intracontinental Arid Zones", *Climatic Change* 30, pp. 1-15.
35. Lapenis, A.G., Rampino, M.R. 1993. "Predicting Earth's Life Span". *Nature*, 363, p. a. 218.
36. Flannery, B., Kheshgi, H., Hoffert, M., Lapenis, A.G. 1993. "Assessing the Effectiveness of Marine CO<sub>2</sub> Disposal". *Energy Conversion and Management*. 34, pp. 983-989.
37. Lapenis, A.G., Shabalova, M.V. 1992. "Global Climate Changes and Intracontinental Arid Zones". *Meteorologiya i Gidrologiya* 8, pp. 18-24 (English translation in *Soviet Meteorology and Hydrology*).
38. Borzenkova, I.I., Zubakov, V.A., Lapenis, A.G. 1992. "Global Climate Changes During the Warm Epochs of the Past". *Meteorologiya i Gidrologiya* 8, pp 32-40 (English translation in *Soviet Meteorology and Hydrology*).
39. Lapenis, A.G., Budyko, M.I. 1990. "Antropogennye izmeneniya klimata I productivnost morskoi bioty" (Anthropogenic climate changes and marine biota productivity). *Fishing and Oceanography*, 129, Leningrad, pp. 10-27 (in Russian).
40. Lapenis, A.G., Os'kina, N., Ivanova, E., Barash, M.S. 1990. "The Late Quaternary Changes in Ocean Productivity". *Okeanologia* 30, No 1, pp. 69-75 (English translation in *Oceanology*).
41. Lapenis, A.G., Vasileva E.V. 1989. "Zonal distribution of marine biota productivity in the World Ocean". *SHI Transactions*, V. 347, pp. 87-91.
42. Lapenis, A.G. 1989. "Biodynamic mechanism of changes in atmospheric CO<sub>2</sub> concentrations". *Izvestia Akademii Nauk SSSR, Geochimia*, 6, pp. 794-799 (English translation in *Geochemica International*).

43. Lapenis, A.G., Saikin I.A. 1989. "The model of oxygen regime of bottom sediments in shallow basin". SHI Transactions, V.346, pp. 25-34.
44. Lapenis, A.G. 1988. "Influence of marine biota productivity on CCD level in the ocean and CO<sub>2</sub> concentration in the atmosphere". In: Hydrology, (Ed, by I.V. Popov), Leningrad, Gidrometeoizdat, pp. 15-27.
45. Verbitski, M.Ya., Lapenis, A.G. 1987. "Ice ages, carbon dioxide and calcium balance in the ocean". Izvestia Akademii Nauk SSSR, Seria Geographicheskaya, pp. 16-24 (English translation in Izvestia of Russian Academy of Sciences, Geography).
46. Lapenis, A.G. "Antarctic surges and atmospheric CO<sub>2</sub> concentration". In: Actual Questions in Oceanography. Leningrad, Gydrometeoizdat, 1987, pp. 180-183.
47. Lapenis, A.G., Kolomeitsev, A.I. 1987. "Effects of ocean circulation on marine biota productivity". Meteorologiya i Gydrologiya 1, pp. 77-83 (English translation in Soviet Meteorology and Hydrology).
48. Buytner, E.K., Zaharova, O.K., Lapenis, A.G. 1986. "On the estimation of atmospheric carbon dioxide concentration in the preindustrial epoch". Izv. Acad. Nauk of the USSR, 30, 1986. (English translation in Izvestia of Russian Academy of Sciences, Atmospheric and Oceanic Physics).
49. Lapenis, A.G. 1986. "Marine biota productivity, ocean circulation and atmospheric CO<sub>2</sub> concentration". In: Geochemistry of Carbon. Moscow, Nauka, pp. 23-27.
50. Lapenis, A.G. 1984. "Relationship of the partial pressure of carbon dioxide in the atmosphere with the level of critical depth of carbonate accumulation in the ocean". Meteorologiya i Gydrologiya (English translation in Soviet Meteorology and Hydrology) 9, pp. 66-72.
51. Lapenis, A.G. 1984. "On the chemical balance of natural waters with bottom deposits". Meteorologiya i Gydrologiya (English translation in Soviet Meteorology and Hydrology), 2, pp.46-53.
52. Lapenis A.G. 1984. On the impact of environmental conditions on chemical equilibrium between carbonate deposits and sea water. Proceedings of Yung Scientists Conference. Leningrad, Hydrometeoizdat, p 14-23
53. Lapenis A.G.1984. Relationship between the depth of critical carbonate accumulation in the World Ocean and atmospheric concentration of carbon dioxide. In Marine Geology. Proceedings of 6<sup>th</sup> Congress of marine geologists. V1, p 34-39
54. Buytner, E.K. and Lapenis, A.G. 1983. On the impact of oil slicks on sea surface temperature and on components of sea surface energy balance. SHI Transactions, V280 p. 22-29
55. Buytner E.K., Zaharova O.K., Turchinovich I.E., Lapenis A.G. 1981 Anthropogenic changes of atmospheric carbon dioxide during next five decades. Meteorologia I a. Gidrologia 3, p.18-31 (English translation in Soviet Meteorology and Hydrology)
56. Lapenis, A.G. 1981. Temperature control of anthropogenic carbon dioxide absorption by the World Ocean. Proceedings of Leningrad University. Geology and Geography. 7, p 7-18

## BOOK CHAPTERS

57. Lapenis, A.G (contributor). 1990. "World Ocean and Coastal Zones". The IPCC Impact Assessment (Edited by W.J. Mc G. Tegart, G.W. Sheldon and D.C. Griffiths), Melbourne, Australia, Imprimature Press pp.6-11 and 6-28.
58. Rampino, M.R., Etkins R., Hoffert, M.I., Lapenis, A.G., Rosanov, E.V., Volk, T. 1989. "Feedback between the Greenhouse Effect, Stratospheric Ozone and Marine Productivity". Third International Conference on Analysis and Evaluation of Atmospheric CO<sub>2</sub> Data Present and Past. (Hinterzarten, 16-20 October 1989). Report No. 59 World Meteorological Organization. (WMO TD No. 340)
59. Buytner E.K., Lapenis, A.G. 1985. "Influence of surface sea layer pollution on heat and mass exchange between the ocean and the atmosphere". In "Problems of Chemical Pollution of the World Ocean" (Ed: E.K. Buytner and R.S. Bortkovki). Leningrad, Gidrometeoizdat, pp. 128-149
60. Lapenis, A.G. 1984. "Influence of temperature and pressure on chemical equilibrium of natural waters with bottom sediments". In: Hydrology, (Ed., by I.V. Popov), Leningrad, Gidrometeoizdat, pp. 25-36.

#### SELECTED reports

61. Lapenis, A.G. 2014. "Snow Manipulation Studies at Huyck Preserve". Report to Scientific Advisory Committee of Edmund Huyck Preserve and Biologic Station. Reprint, 30 p.

#### Publications in popular scientific literature

62. Lapenis A.G. 2011. Global Person: Climatologist Mikhail Budyko. Globalistic and Globalization Studies. Volgograd, "Teacher" Publishing House, N7, p 182-189
63. Lapenis, A.G. 2007. The Wind of Petersburg's Energetics. Russian Expert Review, N4-5 (22), p. 6567
64. Lapenis, A.G. 2000 "Old and New Soil Samples Used to Study Soil Contamination", Earth in Space (For Teachers and Students of Science), Vol.12, No 6, pp. 4-7.

#### Funding

#### EXTERNAL

1. "Urban Climate Adaptation of Forest Ecosystems with Disadvantaged Communities and Youth in Albany, New York" (PI), US Department of Agriculture. Duration 2024-2029. Amount : \$5,000,000.
2. "TESSA: Thermopile-based Enzymatic Sugar Sensor Array." (PI), National Science Foundation, Innovative Corps Program. Duration: 2015-2016. Amount: \$50,000.

3. "Acquisition of a small Unmanned Aircraft System (UAS) for natural and urban ecosystem studies and risk disaster management." (Co-PI, with A. Buyantuev, (PI), Shiguo Jiang, Liming Zhou, J. Mower), NSF, MRI, Amount: \$147,983
4. "Collaborative Research: IDBR: TYPE A: The NANAPHID: A novel aphid-like 2015 - 2017 nanosensor network for real-time measurements of carbohydrates in live plant tissue." (PI), National Science Foundation, Instrument Development for Biological Research. Duration: 2015- 2018. Amount: \$837,000.
5. "Development of "Aphid-like". Biosensors for Measuring 2013 - 2015 Concentrations of Saccharides in Sap Flow in Conifer Stem Phloem." (PI). Sponsor: SUNY 4E Network. Amount: \$135,000.
6. "Acquisition of Two Channel Dendrometers for Study of Spruce Response 2012 - 2014 to Early Snow Melt." (PI). Sponsor: USGS. Duration: December 2012- December 2013. Amount: \$25,000
7. "Snow Manipulations and Dendroclimatological Studies at the Huyck 2012 - 2013 Preserve." (PI). Sponsor: Huyck Preserve Foundation. Duration: April 2012- April 2013. Amount: \$3,000
8. "Appalachian Trail MEGA-Transect Atmospheric Deposition Effects Study." 2009 - 2013 (Co-PI with Greg Lawrence (PI, USGS) and others). Sponsor: National Park Service. Duration: 2009–2013. Amount: \$298,382.
9. "Deriving Biogeochemical Fingerprints of Acidic Deposits on Forest Soil and 2003 - 2004 Forest Health in the United States and Russia: Regional Approach to Global Problem." (PI). Sponsor: US Forest Service. Duration: August 1, 2003 – August 1, 2004. Amount of award: \$31,000
10. "Patroon Creek Watershed Monitoring, Management and Restoration Program." 2001 - 2003 (Co-PI with [Arnason](#) (PI, DAES), [Robinson](#) (DB) and others). Sponsor: Environmental Protection Agency (Grant Number: R828578), Amount of award: \$643,614
11. "A Comparative Study of Acidic Deposition and Natural Processes on Forest 2001 - 2003 Soil Development in the United States and Russia Over the Past Century." (PI), Sponsor: National Science Foundation, Division of Environmental Biology, Cluster for Ecological Studies, Ecosystem Studies Program. Duration: April 2001-April 2003. Amount of award: \$227,635.
12. "Deriving Biogeochemical Fingerprints of Acidic Deposits on Forest Soil and 2000 - 2002 Forest Health in the United States and Russia: Regional Approach to Global Problem." (PI). Sponsor: US Forest Service. Duration: August 1, 2000 – August 1, 2002. Amount of award: \$20,000.
13. "Integrated Undergraduate Physical Geography Laboratory." (PI). Sponsor: 1998 - 2000 National Science Foundation, Education and Human Resources Directorate, Division of Undergraduate Education. Duration: 1998-2000. Amount of Award: \$45,224 (matching University at Albany funds: \$150,000).
14. "Salinization of Russian Steppe.", REU (Research Experience for Undergraduates) supplement to NSF grant that follows. Source of support: Arctic Science, Engineering, and Education Program (PI). Duration: 1998. Amount of Award: \$5,000.



15. "Atmospheric Contamination of Russian Soils (1896-Present)." (PI with 1996 - 1998 Co-Pis: Margaret Torn, Jennifer Harden, Susan Trumbore and Eric Sundquist ). Source of Support: National Science Foundation, Geography and Regional Science Program together with Human Dimensions of Global Change. Duration: 1996-1998. Amount of Award: \$160,000.

#### **INTERNAL (UAlbany and Research Foundation):**

16. "SitS: Infrared Spectroscopy for Automatic in situ Detection of Plant Roots and Organic Carbon Measurements in Soil Profiles" (PI) SUNY Research Foundation. Duration: 2023-2024. Amount : \$39,600.
17. "Remote Sensing of Starch in Spruce Canopy: Preliminary Dataset" (PI). 2011 - 2014 Sponsor: University at Albany (FRAP B). Duration: May 2011 –May 2014. Amount of award: \$3,690
18. "Land-use History and Carbon Dynamic in the Soils of East European Plain 1998 - 1999 during the Last 100 Years." (PI). Sponsor: University at Albany (FRAP A). Duration: 15 April 1998 -14 April 1999. Amount of Award: \$10,000.

#### **Selected Invited Talks and Conference PRESENTATIONS**

Lapenas, "A Newly Identified Role of the Deciduous Forest Floor in the Timing of Green-Up" 2018 <https://www.creaf.cat/Talks/creaftalks-2018/andrei-lapenas-25-apr-2018> CREAf, Universitat Autònoma de Barcelona. Barcelona, Spain. <https://www.youtube.com/watch?v=B-n8TbQuCuc>

Lapenis "Relationships between NDVI and soil properties in the Adirondacks", 2015 Ninth Annual Workshop of the Northeastern Soil Monitoring Cooperative, USGS New York Water Science Center, Troy, NY March 26, 2015

Lapenis "Snow Manipulation Studies at Huyck Preserve". Eugene Odum Symposium, Huck Preserve Biologic Station, Rensselaerville, NY , July 2014

Lapenis "Archive studies as instrument of soil science", Canadian Association of 2012 Soil Science, Annual Meeting, Quebec, Canada, June 6th 2012

Lapenis "Potential shift of carbon allocation in boreal forests in response to climate warming". Department of Geography, Peking University, Beijing, China 14 November 2010

Lapenis “Role of boreal forests in carbon sink”, Beijing Forum, Beijing, China, 7 November 2010

Lapenis “Role of soils in directed evolution of biosphere”, Eurasian Soil Science Conference, St. Petersburg University, St. Petersburg, Russia, 20 March 2009

Lapenis “Historic Russian Soil Collection” International Conference on Archived Studies in Soil Science, The University of Edinburgh Edinburgh, Great Britain, 7 October 2008

Lapenis “Acclimation of Spruce Species to Warming and Shift in Carbon Allocation Away from Stem Wood”, Department of Geography, McGill University, Canada, March 2007

Lapenis “Acclimation of Russian forest to warming”, NESPI Conference, Vienna, Austria. 17 April 2006

Lapenis “ Application of Archived Soil Monoliths for Studies of Terrestrial Carbon Cycle”, St.Petersburg University International Soil Conference, St. Petersburg, Russia, 2004

Lapenis “Time Machine” of Soil Archives”, Founding NESPI Conference, Suzdal,, Russia, 2003

Lapenis “What We Can Learn From Radiocarbon in Russian Steppe Soil”, 2001 Lawrence Livermore National Laboratory, October 2001

Lapenis “Carbon Fractions in Archived and Modern Soil”, Woods Hole 2000 Oceanographic Institution (Joint Seminar with USGS Woods Hole Science Center), Woods Hole, MA, September 2000