

Pavel I. Konstantinov

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EDUCATION

Ph.D.

Lomonosov State University, Faculty of Geography 2004- 2011

Atmospheric Science program (Climatology)

Thesis: *Simulation of climate of the Moscow Region in XXI century with simple urban canopy model*

Scientific supervisor: Professor A.V.Kislov

M.Sc + B.Sc (Specialist's degree)

Lomonosov Moscow State University, Faculty of Geography faculty 1997-2002

Physical Geography (Meteorology and Climatology)

Thesis: *The investigation of turbulent water flux in forest canopy by eddy-covariance measurements and using SLODSVAT-model for error-correction.*

Scientific supervisors: Professor A.V.Kislov, Dr. A.V.Oltchev

ADDITIONAL EDUCATION

Participation in **WMO Inter-regional CLIPS training workshop on urban climatology**,
6-10 September 2010, Pune, India.

Participation in **European Research Course on Atmospheres 2013**

6 January -9 February 2013, POLYTECH' Grenoble is Joseph-Fourier-University's engineering school, Grenoble, France

EMPLOYMENT

2002-2008 Meteorologist in Laboratory of Global Climate Modeling (Hydrometeorological center of Russia), Moscow, Russia

2008- 2011 Research Associate of Department of Meteorology and Climatology, Lomonosov Moscow State University, Geographical faculty, Moscow, Russia

2011- ... Assistant Professor of Department of Meteorology and Climatology, Lomonosov Moscow State University, Geographical faculty, Moscow, Russia

TEACHING EXPERIENCE

- Lectures on microclimatology for third-year students of the faculty of geography (MSU)
2014-

- Field practice on meteorology for the first-year students of the faculty of geography (MSU)
2005-...

- Seminars on Measurement Techniques in Meteorology for the second-year students of the faculty of geography (MSU) 2011- ...
- Lectures in Master program of RUDN University « Management and design of urban green infrastructure» 2016 -

RESEARCH INTERESTS

- Microclimatology, Biometeorology
- Medical Geography
- Urban Planning
- Urban climatology (modeling of heat exchange in urban canopy) , Theory of Climate, Climate modeling
- Climatology of Polar regions

MAIN PUBLICATIONS (per-reviewed papers)

1. **Pavel Konstantinov**, Mikhail Varentsov, and Igor Esau. A high density urban temperature network deployed in several cities of eurasian arctic. *Environmental Research Letters*, 13(7), 2018.
2. Varentsov Mikhail, **Konstantinov Pavel**, Baklanov Alexander, Esau Igor, Miles Victoria, and Davy Richard. Anthropogenic and natural drivers of a strong winter urban heat island in a typical arctic city. *Atmospheric Chemistry and Physics*, 18:17573–17587, 2018.
3. Natalia Shartova, Dmitry Shaposhnikov, **Pavel Konstantinov**, and Boris Revich. Cardiovascular mortality during heat waves in temperate climate: an association with bioclimatic indices. *International Journal of Environmental Health Research*, 28(5):522–534, 2018.
4. **Konstantinov P. I.**, Grishchenko M. Y., Varentsov M. I. Mapping urban heat islands of arctic cities using combined data on field measurements and satellite images based on the example of the city of Apatity (Murmansk oblast) // *Izvestiya - Atmospheric and Oceanic Physics*. — 2015. — Vol. 51, no. 9. — P. 992–998.
5. Timofey E. Samsonov, **Pavel I. Konstantinov**, Mikhail I. Varentsov, Object-oriented approach to urban canyon analysis and its applications in meteorological modeling, *Urban Climate*, Volume 13, September 2015, Pages 122-139, DOI: 10.1016/j.uclim.2015.07.007
6. **P.I. Konstantinov**, M.I. Varentsov, E.P. Malinina: Modeling of thermal comfort conditions inside the urban boundary layer during Moscow’s 2010 summer heat wave (case-study) // *Urban Climate*, 10 (3) (2014), pp. 563–572 DOI:10.1016/j.uclim.2014.05.002
7. Emelina, S.V., **Konstantinov, P.I.**, Malinina, E.P., Rubinshtein, K.G. Evaluation of the informativeness of several biometeorological indices for three areas of the European part of Russia // // *Russian Meteorology and Hydrology*. — 2014. — Vol. 39, no. 7. — P. 448-457.
8. N.E. Chubarova, E.I. Nezval’, I.B. Belikov, E.V. Gorbarenko, I.D. Eremina, E.Yu Zhdanova, I.A. Korneva, **P.I. Konstantinov**, M.A. Lokoshchenko, A.I. Skorokhod, and O.A. Shilovtseva. Climatic and environmental characteristics of Moscow megalopolis according to the data of the Moscow State university meteorological observatory over 60 years. *Russian Meteorology and Hydrology*, 39(9):602–613, 2014.

9. **Konstantinov P.I.**, 2010 Microclimatic changes in Moscow in the first half of XXI century (in view of global climate change and different built-up scenarios). //Problems of Regional Ecology, №2, pp 111-115 (in Russian)
10. Kislov A., **Konstantinov P.** Detailed spatial modeling of temperature in Moscow // Russian Meteorology and Hydrology. — 2011. — Vol. 36, no. 5. — P. 300–306.
11. Kislov, A.V., **Konstantinov, P.I.** Simulation of summer temperature regime of the Moscow region ((2007) Vestnik MGU, Ser. 5, Geogr., (1). [Bull. Moscow State Univ., Series 5, Geography, No. 1 (2007)]

SOME OTHER PUBLICATIONS (non per-reviewed papers)

12. A. Kislov, **P. Konstantinov**, M. Varentsov, T. Samsonov, I. Gorlach, and K. Trusilova. Urban amplification of the global warming in moscow megacity. In *Geophysical Research Abstracts*, volume 17 of *EGU General Assembly*, pages EGU2015–5620, Germany, 2015. Germany
13. Climate and air quality characteristics in moscow according to the 60-year period of measurements at the meteorological observatory of moscow state university /N. Chubarova, O. Shilovtseva, E. Gorbarenko, **P. Konstantinov** et al. // Book of abstracts of International Geographical Union Regional Conference “GEOGRAPHY, CULTURE AND SOCIETY FOR OUR FUTURE EARTH” (IGU 2015), 17-21 August 2015. —Lomonosov Moscow State University, Faculty of Geography Moscow, Russia, 2015. — P. 1537–1538.
14. Kislov Alexander, **Konstantinov Pavel**, Varentsov Mikhail, Samsonov Timofey, Gorlach Irina, and Trusilova Kristina. Global warming in moscow megacity: global effect and the urban amplification of the heating“GEOGRAPHY, CULTURE AND SOCIETY FOR OUR FUTURE EARTH” (IGU 2015), 17-21 August 2015. — Lomonosov Moscow State University, Faculty of Geography Moscow, Russia, 2015. — P. 1540.
15. Kukanova E.A., **Konstantinov P.I.** An urban heat islands climatology in Russia and linkages to the climate change In *Geophysical Research Abstracts*, volume 16 of *EGU General Assembly*, pages EGU2014–10833–1, Germany, 2014. Germany.
13. M. Varentsov, K. Trusilova, **P. Konstantinov**, and T. Samsonov. Investigation of the climate change within moscow metropolitan area. In *Geophysical Research Abstracts*, volume 16 of *EGU General Assembly*, pages EGU2014–15390–1, Germany, 2014. Germany.
14. Elizaveta Malinina, **Pavel Konstantinov** Thermal comfort assessment in Moscow during the summer 2010. In *Geophysical Research Abstracts*, volume 15 of *EGU General Assembly*, pages EGU2013-328-1, Germany, 2013 Germany.
Varentsov M. I., **Konstantinov P. I.**, Malinina E. P., Experimental research of the meteorological parameters inside the urban boundary layer// book of abstracts of ICUC8 conference, Dublin, Ireland 6-10 august 2012, P. 143;
15. Malinina E.P, Varentsov M.I., **Konstantinov P.I.**, Simulation of thermal comfort conditions in Moscow// book book of abstracts of ICUC8 conference, Dublin, Ireland 6-10 august 2012, P. 254;
16. **Konstantinov P.I.**, Samsonov T.E., Kukanova E.A., Malinina E.P., -Varentzov M.I., GIS-based meteorological model of the urban canopy layer// book of abstracts of ICUC8 conference, Dublin, Ireland 6-10 august 2012,. P. 285;
17. Kukanova E.A , **Konstantinov P.I.** Creating database of urban surface parameters for high-resolution meteorological models// book of abstracts of ICUC8 conference, Dublin, Ireland 6-10 august 2012,. P.168;

MAIN SCIENTIFIC MEETINGS

May 2008 Participation in 4th international Conference on Advances in Wind and Structures (AWAS'08) 29-31 May 2008, Jeju, Korea. Oral presentation

October 2008 Participation in 5th Japanese-German Meeting on Urban Climatology, 05-12 October 2008, Freiburg, Germany. Poster presentation

June 2009 Participation in Seventh International Conference on Urban Climate (ICUC-7), 29 June – 3 July 2009, Yokohama, Japan. Oral presentation

May 2010 Participation in European Geosciences Union General Assembly 2010. 02 – 07 May 2010, Vienna, Austria. Poster presentation

April 2011 Participation in European Geosciences Union General Assembly 2010. 03 – 08 April 2010, Vienna, Austria. Poster presentation

August 2012 Participation in 8th International Conference on Urban Climate (ICUC-8), 6-11 August 2012, Dublin, Ireland. Oral presentation +3 poster presentations

April 2013 Participation in European Geosciences Union General Assembly 2013. 07 – 12 April 2013, Vienna, Austria. Poster presentation

April 2014 Participation in European Geosciences Union General Assembly 2013. 27 April– 02 May 2014, Vienna, Austria. 1 oral and 4 Poster presentations

April 2015 Participation in European Geosciences Union General Assembly 2013. 12-17 April 2015, Vienna, Austria. 3 Poster presentations

OTHER ACTIVITIES

January – February 2010 - Leader of meteorological Arctic winter expedition of Moscow State University to White Sea board (Investigation of winter microclimate conditions in Arctic region)

January – February 2011 - Leader of meteorological Arctic winter expedition of Moscow State University to White Sea board (Investigation of winter microclimate conditions in Arctic region)

January – February 2012 - Leader of meteorological Arctic winter expedition of Moscow State University to White Sea board (Boundary layer remote sensing in Arctic region)

January – February 2014 - Leader of meteorological Arctic winter expedition of Moscow State University to Kola peninsula (UHI of cities in Arctic region)

January – February 2015 - Leader of meteorological Arctic winter expedition of Moscow State University to Kola peninsula (Complex UHI investigation in Apatity)

MEMBERSHIPS & SPECIAL INTEREST GROUPS

- International Association for Urban Climate (IAUC)

INTERNATIONAL AWARDS

2016 EMS Tromp Young Scientist Travel Award

European Meteorological Society + The Tromp Foundation (Foundation for Biometeorological Research) for the research «Urban Heat Island's intensity research of Arctic city during winter and its influence on inhabitants' thermal comfort»

2019 EMS Tromp Young Scientist Travel Award

European Meteorological Society + The Tromp Foundation (Foundation for Biometeorological Research) for the research «Boundary layer inversions and human thermal comfort in Arctic cities»