

Curriculum vitae

Lola Kotova, Ph.D. (Geography)

Citizenship: Germany

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<https://www.gerics.de/about/team/062496/index.php.de>

Education

1972 - 1982: Secondary school

1984 - 1989: Student of the Chemistry Department of the Moscow State University, Russia

1989: **Diploma in Chemistry**, Moscow State University, Russia

1993 - 1997: PhD-student (part time) at the Northwest Polytechnic Institute, St. Petersburg, Russia

1997: **Ph.D. (Geography)**, Environmental Protection, Department of Geography and Geoecology of the St. Petersburg State University, Russia

Employment

1989 - 1997 Scientist at the Saint-Petersburg Scientific Research Centre for Ecological Safety of the Russian Academy of Sciences

1997 - 2000 Senior Scientist/Scientific Secretary, Nansen International Environmental and Remote Sensing Centre, St. Petersburg, Russia

2002 - 2014 Scientist, Max Planck Institute for Meteorology, Hamburg, Germany

2011 - present Scientist, Climate Service Centre Germany, Hamburg

Professional Skills

Many years' experience with processing of climate modelling data – global & regional models; and remote sensing data

Many years' experience in national and international multidisciplinary projects participation and management:

Ongoing:

- *VALORADA - Validated Local Risk Actionable Data for Adaptation, funded the by the European Commission (Horizon Europe)*
- *MAGICA - Maximizing the synergy of European research Governance and Innovation for Climate Action (Horizon Europe)*

Finished:

- *KERES - Protecting cultural heritage in Germany from extreme climate events, funded by BMBF (2020 – 2023)*
- *Climateurope – Coordination and Support Action for Climate Services and Earth System Modelling (2015-2020), funded by the European Commission (H2020)*
- *AFTER - Impact of climate change and climate extremes on the agriculture and forestry in the Europe-Russia-Turkey Region (2018-2021), funded by ERA.NET Plus with Russia (strengthening STI links between Russia and the European Research Area)*

- *EUCP, European Climate Prediction System (2017-2021), funded by the European Commission (H2020)*
- *Quantifying projected impacts under 2°C warming (IMPACT2C), funded by the European Commission FP7*
- *Climate for Culture, funded by the European Commission. The potential impact of climate change on Europe’s cultural heritage assets – particularly on historic buildings and their interiors has been investigated*
- *Climate Change and Variability: Impact on Central and Eastern Europe (CLAVIER), funded by the European Commission*
- *Synergistic Use of ERS and ENVISAT Synthetic Aperture Radar (SAR) with other EO Data. A Market Survey for Russian Territories, funded by the European Space Agency (ESA)*
- *Assessment of Potentials of Spaceborne SAR Application for Monitoring of Environment of Northern Territories of Russia, funded by the Ministry of Science and Technologies RF, Moscow*
- *Sustainable management of marine living resources and the ecosystem of the White Sea (WHITESEA), funded by the European Commission*
- ✓ Co-ordinator of the INTAS Information Desk for St. Petersburg, Pskov, Novgorod (May - November, 2000);
- ✓ Project manager of the CLAVIER (2006 – 2009) & IMPACT2C projects (2011 – 2015);
- ✓ Principle Investigator of the project AFTER and KERES;
- ✓ Member of the Research and Innovation Board, H2020 project (2016-2021) Blue-Action: Arctic Impact on Weather and Climate;

Many years’ experience interacting with stakeholders – organizing the Festivals within the Climateurope Framework (www.climateurope.eu); organizing the workshops for stakeholders in the CLAVIER and IMPACT2 projects; organizing the workshops of “Climate for Culture” and KERES

Computer Experience

Operating systems: Windows, Unix

Software packages and tools (e.g.):

- Documentation preparation tools (WinWord, Excel, PowerPoint, Adobe etc.)
- Graphics and Image processing packages (NCL)
- Climate data operator , python

Languages:

Russian: native speaker

English: fluent

German: fluent

Publications

1. Isabeau Vandemeulebroucke; Lola Kotova; Steven Caluwaerts; Nathan Van Den Bossche. Impact of climate change on degradation risks in solid masonry walls: Uncertainty assessment using a multi-model ensemble (2024), 10.1016/j.buildenv.2024.111910, (in press).
2. Kotova, Lola: Klimawandel und seine möglichen Auswirkungen auf Rheinland-Pfalz, in: Klimawandel und setzungsbedingte Bauwerksschäden am Beispiel der Wormser Synagoge, hg. v. Generaldirektion Kulturelles Erbe Rheinland-Pfalz, Direktion Landesdenkmalpflege u. Institut

- für Steinkonservierung e.V. (Denkmalpflege in Rheinland-Pfalz. Aus Forschung und Praxis, 7), Petersberg 2024, S. 18–23.
3. I Vandemeulebroucke, L Kotova, S Caluwaerts and N Van Den Bossche. Freeze-thaw risk in solid masonry: The difference between a climate-based and response-based analysis to study climate change. *J. Phys.: Conf. Ser.* **2654** 012023 DOI 10.1088/1742-6596/2654/1/012023
 4. Isabeau Vandemeulebroucke, Lola Kotova and Steven Caluwaerts et al. Freeze-Thaw Risk in Solid Masonry Walls: Impact of Climate Change over Europe and the Mediterranean subjected to RCP 4.5. 2023. DOI: 10.14293/ICMB230010
 5. Isabeau Vandemeulebroucke, Lola Kotova, Steven Caluwaerts, Nathan Van Den Bossche. Degradation of brick masonry walls in Europe and the Mediterranean: Advantages of a response-based analysis to study climate change, *Building and Environment*, Volume 230, 2023. <https://doi.org/10.1016/j.buildenv.2022.109963>.
 6. Kotova, L., Leissner, J., Winkler, M. *et al.* Making use of climate information for sustainable preservation of cultural heritage: applications to the KERES project. *Herit Sci***11**, 18 (2023). <https://doi.org/10.1186/s40494-022-00853-9>
 7. Chris Hewitt, Janette Bessembinder, Mauro Buonocore, Tyrone Dunbar, Natalie Garrett, Lola Kotova, Stacey New, Paula Newton, Rebecca Parfitt, Carlo Buontempo, Francisco Doblas-Reyes, Francesca Guglielmo, Daniela Jacob, Erik Kjellström, Aleksandra Krzic, Helena Martins, Alessia Pietrosanti, Marta Terrado. Coordination of Europe’s climate-related knowledge base: Networking and collaborating through interactive events, social media and focussed groups, *Climate Services*, Volume 24,2021,<https://doi.org/10.1016/j.cliser.2021.100264>.
 8. Hedayatnia, H.; Top, S.; Caluwaerts, S.; Kotova, L.; Steeman, M.; Van Den Bossche, N. Evaluation of ALARO-0 and REMO Regional Climate Models over Iran Focusing on Building Material Degradation Criteria. *Buildings* **2021**, *11*, 376. <https://doi.org/10.3390/buildings11080376>
 9. A Loli ,C Bertolin and L Kotova (2020). Service life prediction of building components in the times of climate change. *IOP Conf. Ser.: Mater. Sci. Eng.* **949** 012048. doi:10.1088/1757-899X/949/1/012048, <https://iopscience.iop.org/article/10.1088/1757-899X/949/1/012048>
 10. Vannoppen, A.; Gobin, A.; Kotova, L.; Top, S.; De Cruz, L.; Viksna, A.; Aniskevich, S.; Bobylev, L.; Buntmeyer, L.; Caluwaerts, S.; De Troch, R.; Gnatiuk, N.; Hamdi, R.; Reza Remedio, A.; Sakalli, A.; Van De Vyver, H.; Van Schaeybroeck, B.; Termonia, P. Wheat Yield Estimation from NDVI and Regional Climate Models in Latvia. *Remote Sens.* **2020**, *12*, 2206. <https://www.mdpi.com/765498>
 11. Kotova L., Jacob D., Leissner J., Mathis M., Mikolajewicz U. (2019). Climate Information for the Preservation of Cultural Heritage: Needs and Challenges. In: Moropoulou A., Korres M., Georgopoulos A., Spyarakos C., Mouzakis C. (eds). *Transdisciplinary Multispectral Modeling and Cooperation for the Preservation of Cultural Heritage. TMM_CH 2018. Communications in Computer and Information Science*, vol 961. Springer, Cham. https://doi.org/10.1007/978-3-030-12957-6_25
 12. Jacob, D. , Kotova, L. , Teichmann, C. , Sobolowski, S. P., Vautard, R. , Donnelly, C. , Koutroulis, A. G., Grillakis, M. G., Tsanis, I. K., Damm, A. , Sakalli, A. and van Vliet, M. T. (2018), Climate Impacts in Europe Under +1.5°C Global Warming. *Earth's Future*, 6: 264-285. doi:[10.1002/2017EF000710](https://doi.org/10.1002/2017EF000710) Selected as a Research Spotlight of EOS: <https://eos.org/research-spotlights/the-benefits-and-vulnerabilities-of-a-warming-europe>
 13. Kotova L., Manez Costa M., José Rodríguez Pérez M., Whiffin F., Garrett N., Bessembinder J., Buonocore M., Newton P., Hewitt C. (2017). The first Climateurope Festival: Climate information at your service. *Climate Services*. 6. <https://doi.org/10.1016/j.cliser.2017.07.005>.
 14. Policy Brief n.1 – European Earth System Modelling for Climate Services. Contributors: Janette Bessembinder (KNMI), Francisco J. Doblas-Reyes (BSC), Helena Martins (SMHI), Laurent Brodeau (BSC), Vladimir Djurdjevic (RHMS), Florian Gallo (UK Met Office), Natalie Garret (UK Met Office), Silvio Gualdi (CMCC), Daniela Jacob (GERICS), Lola Kotova (GERICS), François Massonnet (BSC), Claas Teichmann (GERICS).https://doi.org/10.25424/CMCC/CLIMATEUROPE_POLICY_BRIEF_01

15. Kotova L., Terrado M., Krzic A., Djurdjevic V., Garrett N., Strachan J., Bessembinder J. Lessons and practice of co-developing Climate services with users. https://www.climateurope.eu/wp-content/uploads/2018/03/Climateurope_D4.2_FINAL.pdf
16. Bessembinder J., Kotova L, Manez M., Jacob D. et al. Climateurope: a network to support Europe's research and innovation activities in the fields of Earth-System modeling and climate services. EGU General Assembly 2017.
17. Preuschmann S., Hänslar A., Kotova L., Dürk N., Eibner W., Waidhofer C., Haselberger C., Jacob D., The IMPACT2C web-atlas – Conception, organization and aim of a web-based climate service product, Climate Services, Volume 7, 2017, Pages 115-125, <https://doi.org/10.1016/j.cliser.2017.03.005>.
18. Pfeifer S., Balkovic J., Kotova L., Preuschmann S., Teichmann C., Jacob D. Climate Signal Maps: Assessment and visualization of the robustness of climate change information - an application within IMPACT2C. EGU General Assembly 2015, id.12642
19. Policy Update on 2C Warming: Analysis of early IMPACT2C climate modelling results. https://impact2c.hzg.de/imperia/md/content/csc/policy_update_on_2c_warming_feb_2014.pdf
20. Leissner, J., Kilian, R., Kotova, L. *et al.* Climate for Culture: assessing the impact of climate change on the future indoor climate in historic buildings using simulations. *Herit Sci* **3**, 38 (2015). <https://doi.org/10.1186/s40494-015-0067-9>
21. Bertolin C., Camuffo D., Leissner J., Antretter F., Winkler M., van Schijndel AWM, Schellen HL, Kotova L., Mikolajewicz U., Brostrom T., Leijonhufvud G., Ashley-Smith J. Results of the EU project Climate for Culture: future climate-induced risks to historic buildings and their interiors. 2nd Annual SISC Conference, September 29-30, 2014, Venice, Italy.
22. Kotova L, Mikolajewicz U and Jacob D. Climate modelling in “Built cultural heritage in times of climate change. Eds. J.Leisner, U.Kaiser and R.Kilian. 2014, Fraunhofer MOEZ, 96 pp.
23. Tornari V., Bernikola E., Bellendorf P., Bertolin C., Camuffo D., Kotova L., Jacob D., Zarnic R., Rajcic V., Leissner L. Surface monitoring measurements of materials on environmental change conditions. Optics for Arts, Architecture, and Archaeology IV 8790, 87900C
24. Jacob D., L. Kotova, P. Lorenz, Ch. Moseley, S. Pfeifer S., 2008, Regional climate modelling activities in relation to the CLAVIER project. Quarterly Journal of the Hungarian meteorological (http://omsz.met.hu/idojaras/IDOJARAS_vol112_No3-4.pdf)
25. Kotova L.A., Espedal H.A., Johannessen O.M. Oil spill monitoring by means of SAR. Proc. Int. Symposium on Atmospheric radiation – IRS-2000. July 2000. St. Petersburg State University. Russia.
26. Kotova L.A., Espedal H.A., Johannessen O.M. Oil Spill Study based on Satellite Synthetic Aperture Radar (SAR) data. Proceedings of the 28th International Symposium on Remote Sensing of the Environment, March, 2000, Cape Town, South Africa.
27. Kotova L.A., Espedal H.A., Johannessen O.M. Oil spill detection using spaceborne SAR; a brief review. Proceedings of the 27th International Symposium on Remote Sensing of the Environment, June 8 -12, 1998, Tromsø, Norway. pp. 791-794.
28. Kotova L.A. The complex method of oil spill detection on water surface. PhD thesis, St.Petersburg State University, Russia, 1997, 130 pp.
29. Kotova L.A. On the question of water surface oil spill monitoring. St. Petersburg State University, 1997, 18 pp.