

Curriculum Vitae

Galina Churkina

Yale School of Forestry and Environmental Studies
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EDUCATION

Ph.D. School of Forestry, University of Montana, USA, 1998.
Diploma Department of Mechanics and Mathematics, Moscow State University, Russia, 1990.

POSITIONS

2017 - present Visiting Fellow, Yale School of Forestry and Environmental Studies, USA.
2010 - present Visiting Scientist, Geography Department, Humboldt Universität zu Berlin, Germany.
2012 - 2016 Senior Fellow, Institute for Advanced Sustainability Studies, Germany.
2008 - 2010 Senior Scientist and Group Leader, Leibniz Centre for Agricultural Landscape Research (ZALF), Germany.
2004 - 2008 Senior Scientist and Group Leader, Max-Planck Institute for Biogeochemistry, Germany.
2007 Visiting Fellow, School of Natural Resources and Environment (SNRE), University of Michigan, USA.
2005 Visiting Fellow, Climate and Global Dynamics Division, National Center for Atmospheric Research (NCAR), USA.
1999 - 2004 Scientist, Max-Planck Institute for Biogeochemistry, Germany.
1998 - 1999 Post-Doctoral Fellow, Department of Plant Ecology, University of Bayreuth, Germany.
1995 - 1998 Research Assistant, Numerical Terradynamics Simulation Group (NTSG), School of Forestry and Conservation, University of Montana, USA
1993 - 1994 Visiting Scholar Department of Integrated Systems Analysis, Potsdam Institute for Climate Impact Research (PIK), Germany.
1991 - 1994 Research Associate, Laboratory of Ecological Modeling, Institute of Atmospheric Physics, Russian Academy of Sciences, Russia.

AWARDS AND RECOGNITIONS

2017 Article "Effect of VOC emissions from vegetation on air quality in Berlin during a heatwave" by Churkina et al. selected for the ACS Weekly Press Release.
2016 Research Fellowship from the German Science Foundation (DFG);
Teaching Grant from the Commission for Equal Opportunities for Women, Humboldt Universität zu Berlin, Germany;
Article "The role of urbanization in the global carbon cycle" by Churkina G. selected for the weekly news section of the Institute of Advanced Sustainability Studies, Germany.
2009 Article "Carbon stored in human settlements: the conterminous US" by Churkina et al. selected for the press-conference at the AGU Fall Meeting, San Francisco, USA.
2005 Article "Partitioning direct and indirect human-induced effects on carbon sequestration of managed coniferous forests using model simulations and forest inventories" by Vetter et al selected as the "Best of 2005" paper of the CARBOEUROPE-IP project.

- 2007 Research Fellowship from the German Science Foundation (DFG).
- 1997 Student Participation Travel Award from the NATO Advanced Study Institute.
- 1996 Women of Distinction Award from the Soroptimist International of Americas.
- 1993 Research Scholarship from the George Soros Foundation;
 Graduate Summer Program Grant for the Central European University, Hungary from the George Soros Foundation.

INTERNATIONAL SCIENCE SERVICE

Associated Editor of Frontiers in Ecology and Evolution.

Primary Co-Chair of the session “Urban Areas and Global Change” at the Fall Meeting of the American Geophysical Union since 2008.

Reviewer of Journals Geophysical Research Letters, Global and Planetary Change, Global Biogeochemical Cycles, Global Change Biology, Climatic Change, Ecological Modelling, Environmental Science and Technology, Landscape and Urban Planning, Nature Climate Change, Scientific Reports (Nature), Tellus.

Reviewer of Foundations & Programs NASA Carbon Cycle Science Program (USA), NOAA Earth System Science Program (USA), National Science Foundation (USA), Natural Environment Research Council (UK), Academy of Science of Finland, European Commission, IPCC, Norwegian-Polish Science Program.

Advisory Board ‘Made of Air’ GmbH (2016-present);
 CARBOEUROPE Integrated Project (2004-2008).

Steering Committee COSMOS (network for climate and global ecosystem modeling) (2008-2010).

SCIENCE COMMUNICATION ACTIVITIES

Numerous pieces about our research have appeared in Scientific American, Nature News, National Geographic News, Environmental Research Web, La Repubblica, and Conservation Magazine.

Talking point article in Environmental Research Web: “*Tomorrow’s cities: a carbon jungle?*”
<http://environmentalresearchweb.org/cws/article/opinion/39829>

Blogs on various topics related to urbanization: <http://blog.iass-potsdam.de/>.

Invited presentations on the topics of climate change, carbon cycle, and air quality in cities at selected events:

- 2015 Workshop “Urban Climate: From Science to Solutions”, Yale Center, Beijing, China
- 2013 14th European Forum on Eco-innovation “Into clean air ... Delivering innovative solutions for mobility, energy, and ICT in cities”, Prague, Czech Republic
 Dialog “No-regrets: Pre-acting and Adapting to Climate Change in Cities”, Berlin Senat, Berlin, Germany
- 2009 International Symposium “Cities and Carbon Management: Towards Enhancing Science- Policy Linkages”, Tokyo, Japan
- 2008 Press-conference “Urban Areas and Global Change” at 2008 Fall Meeting of AGU, San Francisco, USA.

ADDITIONAL EDUCATION AND TRAINING

- 2016 “The Art of Hosting” Training Program in Participatory Leadership, European Forum Alpbach, Austria.
- 2016 Planning and development of lectures and courses, Deutscher Hochschulverband, Bonn, Germany
- 2008 Science communication workshop for scientists: “Communicating your science”, AGU Fall meeting, San Francisco, USA.

- 2001 Training workshop for Junior Research Group Leaders within the Max-Planck Society, Jena, Germany.
- 1997 NATO Advanced Study Institute "Soils and Global Change: Carbon Cycle, Trace Gas Exchange, and Hydrology", Château de Bonas, France.
- 1996 Summer Colloquium on Terrestrial Ecosystems and the Atmosphere, National Center for Atmospheric Research (NCAR), USA.
- 1993 Graduate Summer Program, Department of Environmental Sciences and Policy, Central European University (CEU), Hungary.

Publications (h-index=26 (Scopus))

PEER-REVIEWED ARTICLES¹

2017

Churkina G, Kuik F, Bonn B, Lauer A, Grote R, Tomiak K, Butler TM, Effect of VOC emissions from vegetation on air quality in Berlin during a heatwave. *Environmental Science and Technology*, 51 (11), 6120-6130.

Baldacchini C, Castanheiro A, Maghakyan N, Sgrigna G, Verhelst J, Alonso R, Amorim J, Bellan P, Djunisijevic Bojovic D, Breuste J, Bühler O, Cântar I, Cariñanos P, Carriero G, **Churkina G**, Dinca L, Esposito R, Gawronski S, Kern M, Le Thiec D, Moretti M, Ningal T, Rantzoudi E, Sinjur I, Stojanova B, Aničić Urošević M, Velikova V, Zivojinovic I, Sahakyan L, Calfapietra C, Samson R. How does the amount and composition of PM deposited on *Platanus acerifolia* leaves change across different cities in Europe? *Environmental Science and Technology* 51 (3), 1147–1156.

Tigges J, **Churkina G**, Lakes T Modeling above-ground carbon storage: a remote sensing approach to derive individual tree species information in urban settings. *Urban Ecosystems* 20, 97-111.

2016

Churkina G, The role of urbanization in the global carbon cycle. *Frontiers in Ecology and Evolution* 3.

Ma S, **Churkina G**, Gessler A, Wieland R, Yield gap of winter wheat in Europe and sensitivity of potential yield to climate factors. *Climate Research* 67:179-190.

Grote R, Samson R, Alonso R, Amorim JH, Cariñanos P, **Churkina G**, Fares S, Thiec DL, Niinemets Ü, Mikkelsen TN, Paoletti E, Tiwary A, Calfapietra C, Functional traits of urban trees in relation to their air pollution mitigation potential. *Frontiers in Ecology and Environment* 14(10): 543-550.

Kuik F, Lauer A, **Churkina G**, Denier van der Gon HAC, Fenner D, Mar KA, Butler TM, Air quality modelling in the Berlin-Brandenburg region using WRF-Chem v3.7.1: sensitivity to resolution of model grid and input data. *Geoscientific Model Development* 9 (12): 4339-4363.

Hidy D, Barcza Z, Marjanović H, Ostrogović Sever MZ, Dobor L, Gelybó G, Fodor N, Pintér K, **Churkina G**, Running S, Thornton P, Bellocchi G, Haszpra L, Horváth F, Suyker A, Nagy Z, Terrestrial Ecosystem Process Model Biome-BGCMuSo: Summary of improvements and new modeling possibilities. *Geoscientific Model Development* 9 (12): 4405-4437.

Tiwari S, Grote R, **Churkina G**, Butler T, Ozone damage, detoxification and the role of isoprenoids – new impetus for integrated models. *Functional Plant Biology* 43: 324-336.

Bonn B, von Schneidemesser E, Andrich D, Quedenau J, Gerwig H, Lüdecke A, Kura J, Pietsch A, Ehlers C, Klemp D, Kofahl C, Nothard R, Kerschbaumer A, Junkermann W, Grote R, Pohl T, Weber K, Lode B, Schönberger P, **Churkina G**, Butler TM, Lawrence MG (2016) BAERLIN2014 - The influence of land surface types on and the horizontal heterogeneity of air pollutant levels in Berlin. *Atmospheric Chemistry and Physics* 16: 7785-7811.

2015

Churkina G, Grote R, Butler TM, Lawrence M, Natural selection? Picking the right trees for urban greening. *Environmental Science & Policy* 47: 12-17.

2014

Luyssaert S, Jammot M, Stoy PC, Estel S, Pongratz J, Ceschia E, **Churkina G**, Don A, Erb K, Ferlicoq M, Gielen B, Grunwald T, Houghton RA, Klumpp K, Knohl A, Kolb T, Kuemmerle T, Laurila T, Lohila A, Loustau D, McGrath MJ, Meyfroidt P, Moors EJ, Naudts K, Novick K, Otto J, Pilegaard K, Pio CA, Rambal S, Rebmann C, Ryder J, Suyker AE, Varlagin A, Wattenbach M, Dolman AJ, Land management and land-cover change have impacts of similar magnitude on surface temperature. *Nature Climate Change* 4: 389-393.

¹ Underline indicates that co-author is a post-doc or student under my supervision

Schreyer J, Tigges J, Lakes T, **Churkina G**, Using Airborne LiDAR and QuickBird Data for Modelling Urban Tree Carbon Storage and Its Distribution—A Case Study of Berlin. *Remote Sensing* 6, 10636-10655.

Hlásny T, Barcza Z, Barka I, Merganičová K, Sedmák R, Kern A, Pajtík J, Balázs B, Fabrika M, **Churkina G** Future carbon cycle in mountain spruce forests of Central Europe: Modelling framework and ecological inferences. *Forest Ecology and Management*, 328: 55-68.

2013

Rodeghiero M, **Churkina G**, Martinez C, Scholten T, Gianelle D, Cescatti A, Components of forest soil CO₂ efflux estimated from delta¹⁴C values of soil organic matter. *Plant & Soil*, 364: 55-68.

2012

Ma S, **Churkina G** & Trusilova K, Investigating the impact of climate change on crop phenological events in Europe with a phenology model. *International Journal of Biometeorology*, 56 (4): 749-763.

Hidy, D., Barcza, Z., Haszpra, L., **Churkina, G.**, Pintér, K., Nagy, Z., 2012. Development of the Biome-BGC model for simulation of managed herbaceous ecosystems. *Ecological Modelling*, 226, 99-119.

2011

Ma S, **Churkina G**, Wieland R, Gessler A, Optimization and evaluation of the ANTHRO-BGC model for winter crops in Europe. *Ecological Modelling*, 222 (20-22): 3662-3679.

Hlásny T, Barcza Z, Fabrika M, Balázs B, **Churkina G**, Pajtík J, Sedmák R, Turcáni M, Climate change impacts on growth and carbon balance of forests in Central Europe. *Climate Research*, 47(3): 219-236.

Barcza Z, Bondeau A, **Churkina G**, Ciais P, Czóbel S, Galybó G, Grosz B, Haszpra L, Hidy D, Horváth L, Machon A, Pásztor L, Somogyi Z, Van Oost K Model based biospheric greenhouse gas balance of Hungary. Pages: 295-332 in: Haszpra L (Ed) *Atmospheric greenhouse gases: The Hungarian perspective*. Springer, New York.

Grosz B, Galybó G, **Churkina G**, Haszpra L, Horváth L, Kern A, Kljun N, Machon A, Pásztor L, Barcza Z Arable lands. . Pages: 263-294 in: Haszpra L (Ed) *Atmospheric greenhouse gases: The Hungarian perspective*. Springer, New York.

Hidy D, Machon A, Haszpra L, Nagy Z, Pintér K, **Churkina G**, Grosz B, Horváth L, Barcza Z Grasslands. Pages: 229-252 in: Haszpra L (Ed) *Atmospheric greenhouse gases: The Hungarian perspective*. Springer, New York.

2010

Churkina G, Brown D, Keoleian GA, Carbon stored in human settlements: the conterminous US. *Global Change Biology*, 16, 135-143.

Churkina G, Zaehle S, Hughes J, Viovy N, Chen Y, Jung M, Heumann BW, Ramankutty N, Heimann M, Jones C, Interactions between nitrogen deposition, land cover conversion, and climate change determine the contemporary carbon balance of Europe. *Biogeosciences*, 7, 2749-2764

Moffat AM, Beckstein C, **Churkina G**, Mund M, Heimann M, A new methodology for characterizing ecosystem responses to their climatic controls. *Global Change Biology*, 16, 2737-2749.

Luyssaert S, Ciais P, Piao SL, Schulze ED, Jung M, Zaehle S, Schelhaas MJ, Reichstein M, **Churkina G**, Papale D, Abril G, Beer C, Grace J, Loustau D, Matteucci G, Magnani F, Nabuurs GJ, Verbeeck H, Sulkava M, van der Werf GR, Janssens IA, CARBOEUROPE-IP Synthesis Team, The European carbon balance. Part 3: forests. *Global Change Biology*, 16, 1429 – 1450.

Tupek B, Zanchi G, Verkerk PJ, **Churkina G**, Viovy N, Hughes JK, Lindner M, A comparison of alternative modelling approaches to evaluate the European forest carbon fluxes. *Forest Ecology and Management*, 260, 241-251.

Liberloo M, Luysaert S, Bellassen V, Njakou Djomo S, Lukac M, Calfapietra C, Janssens IA, Hoosbeek MR, Viovy N, **Churkina G**, Scarascia-Mugnozza G, Ceulemans R Bio-Energy Retains Its Mitigation Potential Under Elevated CO₂. *PLoS ONE*, 5, e11648.

2009

Churkina G, Brovkin V, Von Bloh W, Trusilova K, Jung M, and Dentener FJ, Synergy of rising nitrogen depositions and atmospheric CO₂ on land carbon uptake offsets global warming, *Global Biogeochemical Cycles*, 23, GB4027.

Trusilova K, Jung M and **Churkina G**, A note on climate impacts of a potential expansion of urban land in Europe, *Journal of Applied Meteorology and Climatology*, 48, 1971-1980.

Barcza Z, Haszpra L, Somogyi Z, Hidy D, Lovas K, **Churkina G**, and Horvath L, Estimation of the biospheric carbon dioxide balance of Hungary using the BIOME-BGC model, *Quarterly Journal of the Hungarian Meteorological Service*, 113, 203-219.

2008

Churkina G, Modelling carbon cycle of urban systems. *Ecological Modelling*, 216: 107-113.

Vetter M, **Churkina G**, Jung M, Reichstein M, Zähle S, Bondeau A, Chen Y, Ciais P, Feser F, Freibauer A, Geyer R, Jones CD, Papale D, Tenhunen J, Tomelleri E, Trusilova K, Viovy N, and Heimann M. Analyzing the causes and spatial pattern of the 2003 carbon flux anomaly in Europe using seven models. *Biogeosciences*, 5: 561-583.

Trusilova K and **Churkina G**, The response of the terrestrial biosphere to urbanization: land cover conversion, climate, and urban pollution. *Biogeosciences* 5: 1505-1515.

Trusilova K, Jung M, **Churkina G**, Karstens U, Heimann M, and Claussen M, Urbanization impacts on the climate of Europe: Numerical experiments with the PSU/NCAR Mesoscale Model (MM5). *Journal of Applied Meteorology and Climatology*, 47(5): 1442-1455.

Hakkenberg R, **Churkina G**, Rodeghiero M, Börner A, Steinhof A, and Cescatti A, Temperature sensitivity of the turnover times of soil organic matter in forests. *Ecological Applications*, 18: 119-131.

Richardson AD, Mahecha MD, Falge E, Kattge J, Moffat AM, Papale D, Reichstein M, Stauch VJ, Braswell BH, **Churkina G**, Kruijt B, Hollinger DY. Statistical properties of random CO₂ flux measurement uncertainty inferred from model residuals. *Agricultural and Forest Meteorology*, 148(1): 38-50.

2007

Churkina G, Trusilova K, Vetter M, and Dentener FJ. Contributions of nitrogen deposition and forest re-growth to land carbon uptake. *Carbon Balance and Management*, 2:5.

Jung M, Vetter M, Herold M, **Churkina G**, Reichstein M, Zaehle S, Ciais P, Viovy N, Bondeau A, Chen Y, Trusilova K, Feser F, and Heimann M. Uncertainties of modelling GPP over Europe: A systematic study on the effects of using different drivers and terrestrial biosphere models. *Global Biogeochemical Cycles* 21, GB4021.

Jung M, Le Maire G, Zaehle S, Luysaert S, Vetter M, **Churkina G**, Ciais P, Viovy N, and Reichstein M. Assessing the ability of three land ecosystem models to simulate gross carbon uptake of forests from boreal to Mediterranean climate in Europe. *Biogeosciences*, 4: 647-656.

Moffat AM, Papale D, Reichstein M, Barr AG, Braswell BH, **Churkina G**, Desai AR, Falge E, Gove JH, Heimann M, Hollinger DY, Hui D, Jarvis AJ, Kattge J, Noormets A, Richardson AD, and Stauch VJ, Comprehensive comparison of gap filling techniques for net carbon fluxes. *Agricultural and Forest Meteorology*, 147(3): 209-232.

Hidy D, Barcza Z, Haszpra L, **Churkina G**, Trusilova K. Parameter estimation for grassland carbon cycle using nonlinear inversion of Biome-BGC. *Cereal Research Communications*. 35(2 Part 1): 453-456.

Hidy D, Barcza Z, Haszpra L, and **Churkina G**, Modelling the CO₂ exchange of grasslands (Gyepék szén-dioxid forgalmának modellezése). *Léggör*, 51(3): 33-36.

2006

Jung M, Henkel K, Herold M, and **Churkina G**, Exploring synergies of land cover products for carbon cycle modelling. *Remote Sensing of Environment*, 101: 534-553.

Reithmaier LM, Göckede M, Markkanen T, Knohl A, **Churkina G**, Rebmann C, Buchmann N, and Foken T, Use of remotely sensed land use classification for a better evaluation of micrometeorological flux measurement sites. *Theoretical and Applied Climatology*, 84, 219-233.

2005

Churkina G, Schimel DS, Braswell BH, and Xiao X, Spatial analysis of growing season length control over net ecosystem exchange. *Global Change Biology*, 11: 1777-1787.

Vetter M, Wirth C, Böttcher H, **Churkina G**, Schulze ED, Wutzler T, and Weber E, Partitioning direct and indirect human-induced effects on carbon sequestration of managed coniferous forests using model simulations and forest inventories, *Global Change Biology*, 11: 810-827.

2003

Churkina G, Tenhunen J, Thornton P, Elbers J, Erhard M, Falge E, Grünwald T, Kowalski A, Rannik U, and Sprinz D, Analyzing the ecosystem carbon dynamics of four European coniferous forests using a biogeochemistry model, *Ecosystems* 6: 168-184.

2001

Schimel DS, House J. I., Hibbard K. A., Bousquet P., Ciais P., Peylin P., Braswell BH, Apps MJ, Baker D, Bondeau A, Canadell JG, **Churkina G**, Cramer W, Denning AS, Field CB, Fridlingstein P, Goodale C, Heimann M, Houghton RA, Melillo JM, Moore III B, Murdiyarso D, Noble I, Pacala SW, Prentice IC, Raupach MR, Rayner PJ, Scholes RJ, Steffen WL, and Wirth C. Recent patterns and mechanisms of carbon exchange by terrestrial ecosystems. *Nature* 414: 169-172.

2000

Churkina G and Running SW, Investigating the balance between timber harvest and productivity of the global coniferous forests under global change, *Climatic Change* 47(1/2): 167-191.

1999

Churkina G, Running SW, and Schloss A, and the other participants of Potsdam '95, Comparing global models of terrestrial net primary productivity (NPP): The importance of water availability to primary productivity in global terrestrial models, *Global Change Biology* 5 (Suppl.1): 46-55.

Cramer W, Kicklighter DW, Bondeau A, Moore III B, **Churkina G**, Nemry B, Ruimy A, Schloss A, and the other participants of Potsdam '95, Comparing global models of terrestrial net primary productivity (NPP): Overview and key results. *Global Change Biology* 5 (Suppl. 1): 1-15.

1998

Churkina G and Running SW, Contrasting environmental controls on the estimated productivity of different biomes, *Ecosystems* 1: 206-215.

1995

Churkina G and Svirezhev Y, Dynamics and forms of ecotone under the impact of climate change: Mathematical approach. *Journal of Biogeography* 22: 565-569.

1992

Churkina G, Ethics of global ecology (in Russian). *Natural Science and Philosophy*, Russian Academy of Science.

PER-REFEREED BOOKS, ENCYCLOPEDIA, AND SPECIAL REPORTS

In preparation _____

Churkina G. Urban Areas and Global Environmental Change: Physical and Biogeochemical Feedbacks, signed book project with Cambridge University Press.

2017 _____

Calfapietra C, Guidolotti G, **Churkina G**, Grote R Urban tree physiology: methods and tools. in Ferrini F, Konijnendijk van den Bosch C, Fini A (Eds) Handbook of Urban Forestry. Routledge.

2013 _____

Churkina G, An introduction to carbon cycle science. Pages 24-51 in: Brown DG, Robinson DT, French NHF & Reed BC (Eds) *Land use and the carbon cycle: Advances in Integrated Science, Management, and Policy*. Cambridge University Press.

2012 _____

Churkina G, Carbonization of urban areas. Pages 369-382 in: Lal R, Lorenz K, Hüttl RFJ, Schneider BU, von Braun J (Eds) *Recarbonization of the Biosphere - Ecosystems and the Global Carbon Cycle*. Springer.

Churkina G, Carbon cycle of urban ecosystems. Pages 315-330 in: Lal R, Augustin B (Eds) *Carbon Sequestration in Urban Ecosystems*. Springer, New York.

2008 _____

Heimann, M, Roedenbeck C, and **Churkina G**, Multiple constraint estimates of the European carbon balance. Pages 361-376 in A. J. Dolman, R. Valentini, and A. Freibauer, (Eds). The continental-scale greenhouse gas balance of Europe. Springer, New York.

2005 _____

Schimel D, **Churkina G**, and Braswell B. Remembrance of weather past: ecosystem response to climate variability, in "A history of atmospheric CO₂ and its effects on plants, animals, and ecosystems" in Ehleringer J, Cerling, and Dearing (Eds), Springer, New York.

2003 _____

Apps MJ, Artaxo P, Barrett D, Canadell JG, Cescatti A, **Churkina G**, Ciais P, Cienciala E, Cox PM, Field CB, Heimann M, Holland E, Houghton RA, Jaramillo V, Joos F, Kanninen M, Kaufmann JB, Kurz W, Lasco RD, Law BE, Mahli Y, McMurtrie R, Morikawa Y, Murdiyarso D, Nilsson S, Ogana W, Peylin P, Sala OE, Schimel DS, Smith P, Zhou G, and Zimov S, Science statement on current scientific understanding of the processes affecting terrestrial carbon stocks and human influences upon them. IPCC special report, Geneva, pp. 29.

2001 _____

Churkina G, Biography of Vladimir Vernadsky, in "The Earth System: biological and ecological dimensions of global environmental change" in Mooney H and Canadell J (Eds), Encyclopedia of Global Environmental Change, vol. 2, John Wiley and Sons Ltd.

Churkina G, Biocenosis, in "The Earth System: biological and ecological dimensions of global environmental change" in Mooney H and Canadell J (Eds), Encyclopedia of Global Environmental Change, vol. 2, John Wiley and Sons Ltd.

Churkina G, Noosphere in "The Earth System: biological and ecological dimensions of global environmental change" in Mooney H and Canadell J (Eds), Encyclopedia of Global Environmental Change, vol. 2, John Wiley and Sons Ltd.

NON-REFEREED PUBLICATIONS

2016 _____

Pace R, **Churkina G**, and Rivera M, How green is a "Green City"? A review of existing indicators and approaches; Working Paper, Institute for Advanced Sustainability Studies (IASS): Potsdam.

2009 _____

Trusilova K, Trembath J, and **Churkina G** (2009), Parameter estimation and validation of the terrestrial ecosystem model BIOME-BGC using eddy -covariance flux measurements, Technical Reports: 16, Max-Planck Institute for Biogeochemistry, Jena, pp. 60.

Chen Y, **Churkina G**, Heimann M, Constructing a consistent historical climate data set for the European domain. Technical Reports: 15, Institute for Biogeochemistry, Jena, pp. 30.

2008 _____

Trusilova K and **Churkina G**, The terrestrial ecosystem model GBIOME-BGCv1. Technical Reports: 13, Institute for Biogeochemistry, Jena, pp. 60.

Barcza Z, Haszpra L, Hidy D, **Churkina G**, Horváth L, Magyarország bioszférikus szén-dioxid mérlegének becslése a BIOME-BGC modellel (engl. ESTIMATION OF THE BIOSPHERIC CARBON DIOXIDE BUDGET OF HUNGARY USING THE BIOME-BGC MODEL). "Klíma-21 füzetek", Klímaváltozás-Hatások-Válaszok. 52, 83-91.

2007 _____

Chen Y, **Churkina G**, Heimann M, A comparison of regional climate variables between various data sources. Technical Reports: 8, Institute for Biogeochemistry, Jena, pp. 36.

1998 _____

Churkina G, Analyzing climatic and human influences on global terrestrial productivity, Dissertation, University of Montana, Missoula, pp. 98.

1995 _____

Cramer W, **Churkina G**, et al. (1995). Net Primary Productivity Model Intercomparison Activity (NPP). *IGBP/GAIM Report Series: 5* (Eds. KA Hibbard and D Sahagian), pp. 42.

Teaching and Mentoring

COURSES

- 2018 Undergraduate Course „Cities & Environment“, New Haven, USA.
- 2016-2017 Undergraduate Course “Der Einfluss der Stadt auf die Umwelt - Beschreibung und Modellierung von Stoff- und Energieflüssen” (“Influence of a City on Environment – Description and Modeling of Material and Energy Flows“), Geography Department, Humboldt Universität zu Berlin, Germany.
- 2015 Graduate Course “Urban Areas and Global Change”, Max-Planck International Research School for Earth System Modeling (IMPRS), Hamburg, Germany.
- 2015 Graduate Course “Scientific Writing”, IRI-THESys, Humboldt Universität zu Berlin, Germany.
- 2010 Course “Remote Sensing and Carbon Cycle” together with P. Hostert and S. von der Linden, Geography Department, Humboldt Universität zu Berlin, Germany.
- 2010, 2011, 2013 Module “Vegetation Models” in the course “Mathematics for Geographers”, Geography Department, Humboldt Universität zu Berlin, Germany.
- 2010 Graduate Course “Scientific Writing”, Graduate School “Urban ecology”, Humboldt Universität zu Berlin, Germany.
- 2006 Graduate Course “Scientific Writing”, Max-Planck International Research School for Earth System Analysis (IMPRS), Hamburg, Germany.
- 2005 Graduate Course “Introduction into Terrestrial Ecosystem Modeling”, Max-Planck International Research School for Earth System Modeling (IMPRS), Hamburg, Germany.
- 2003-2004 Guest Lecturer, “Biogeochemical Cycles and Human Influences”, in graduate course “Global Change”, Institute of Ecology, Friedrich Schiller University, Jena, Germany.
- 2000 Guest Lecturer, “Detecting and Evaluating Environmental Changes: A Natural Science Perspective”, in graduate seminar “Introduction to International Environmental Policy”, Faculty of Economics and Social Sciences, University of Potsdam, Potsdam, Germany.
- 1999 Guest Lecturer, “Global Vegetation Models”, in undergraduate course “Ecosystems of the World”, Department of Plant Ecology, University of Bayreuth, Bayreuth, Germany.
- 1998 Guest Lecturer, “Ecosystem Modeling Approach”, in graduate seminar “Applied Mathematics”, Department of Mathematical Sciences, University of Montana, Missoula, USA.
- 1996-98 Guest Lecturer, in graduate course: “Forest Ecosystem Analysis”, School of Forestry, University of Montana, Missoula, USA.

GRADUATE AND POSTDOCTORAL ADVISING

Post-Doctoral Advisees: Kristina Trusilova, Youmin Chen, Mona Vetter.

Ph.D. Students: Shaoxiu Ma (Ph.D. in 2012), Antje Moffat (Ph.D. in 2010), Robbert Hakkenberg (PhD in 2009), Martin Jung (PhD in 2007), Enrico Tomelleri (PhD in 2007), Kristina Trusilova (PhD in 2006).

Master Students: Johannes Schreyer (M.Sc. in 2012)

Undergraduate Students: Lucia Reithmaier (Diploma in 2002)

Third-Party Funding

2016	Research Fellowship, "Structure and patterns of urban carbon storage", German Science Foundation (DFG).
2013-2017	Contributor to the EU COST Action FP1204, GreenInUrbs: www.greeninurbs.com .
2009-2014	Contributor to the EU COST Action ES0805, "The Terrestrial Biosphere in the Earth System": http://www.terrabites.net/ .
2009-2010	Co-Principal Investigator of workpackage "Greenhouse Gases in Berlin" within "Man in Urban Agglomerations - the Influence of Climate and Environmental Issues (Der Mensch im städtischen Ballungsraum unter Klima- und Umwelteinflüssen, MILIEU)" cluster research development initiative at Free University, Berlin, Germany.
2007	Research Fellowship, "Urbanization impacts on the land carbon cycle", German Science Foundation (DFG).
2004 -2008	Principal Investigator of workpackage on bottom-up estimation of European carbon budget, Integration Component of CARBOEUROPE Integrated Project, European Union Research Grant (GOCE-CT-2003-505572).
2007-2009	Contributor to the "Earth System Network of Integrated Modelling and Assessment" (ENIGMA), Research Project of the Max-Planck Society, Germany.
2001-2008	Contributor, Observing and Understanding Biogeochemical Responses to Rapid Climate Changes in Eurasia, Research Project of the Max-Planck Society, Germany.
2001-2005	Co-Principal Investigator, Remote Sensing and Spatial Ecosystem Models, Center for Alpine Ecology, Grant by Trentino Province, Italy.
2001-2003	Principal Investigator, CARBODATA project of the CARBOEUROPE cluster, European Union Research Grant (EVK2CT-1999-00044).
1997-1998	Co-Principal Investigator, Environmental Security & Global Climate Change: The Role of Environmental Thresholds, NATO Collaborative Research Grant (NATO CRG #970395).
1995 -1997	Contributor, Net Primary Productivity (NPP) Model Intercomparison, Research Project of GAIM IGBP.
1994	Contributor, Brandenburg Biosphere Model (BBM), Core Research Project, Potsdam Institute for Climate Impact Research (PIK), Potsdam, Germany.