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PRESENT POSITION:

1998-present, Research Professor, Department of Environmental Sciences, Rutgers University, USA.

CITIZENSHIP: US and Russia

AREAS OF EXPERTISE:

Climate Modeling, Numerical Fluid Dynamics, Atmospheric Physics, and Air Pollution

EDUCATION:

1989, Doctorate (equivalent to habilitation in Germany) in Numerical Modeling of Climate, Computing Center of the USSR Academy of Sciences, Moscow, Russia.

1977, Ph.D. in Applied Mathematics and Plasma Physics, Moscow Physical Technical Institute, Dolgoprudny, Russia.

1973, M.S. in Physics and Mathematics (with distinction), Moscow Physical Technical Institute, Dolgoprudny, Russia.

PREVIOUS POSITIONS HELD:

1992-1998, Senior Research Scientist (previously Associate Research Scientist and Research Associate), Department of Meteorology, University of Maryland, College Park.

1976-1992: Head of the Branch of Mathematical Modeling of Anthropogenic Impacts (previously Senior Research Scientist and Junior Research Scientist), Computing Center of the Russian Academy of Sciences, Moscow, Russia

MEMBERSHIPS IN PROFESSIONAL SOCIETIES:

1993-present, American Geophysical Union.

1993-present, American Meteorological Society.

2004-present, International Association of Volcanology and Chemistry of the Earth's Interior.

SPECIAL EXPERIENCE:

2006, Convening the session at the 2006 AGU Fall Meeting "U08: Environmental Consequences of Regional Nuclear Conflicts." [with R. Turco, B. Toon, and A. Robock]

2005-present, Serve as a contributing author for the Chapter 2 "Changes in atmospheric constituents and radiative forcing" of the International Panel for Climate Change (IPCC) Fourth Assessment Report.

2004-present, Serve on the International Advisory Board for the PEP Virtual Institute, *National Helmholtz Society, Germany*

2004, Convened and chaired the session at the 2004 AGU Fall Meeting "Methods in Regional Climate Modeling."

2004, Convened and chaired the session "Volcanic Effect on Climate and Weather" at the International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI) 2004 General Assembly "Volcanism and its Impact on Society."

2002, Convened and chaired the session at the 2002 AGU Fall Meeting "Regional Climate Modeling."

2002, Served on the program committee for Chapman Conference on Volcanism and the Earth's Atmosphere, Greece, June 17-21, 2002.

1999, Convened and chaired the session "Volcanic Eruptions and Climate" at the 1999 AGU Fall Meeting.

1998-2004, Led the task for Intercomparison of Simulations of the 1991 Pinatubo eruption in the GCM Reality Intercomparison Project for the Stratosphere (GRIPS) coordinated by the International Committee on Stratospheric Processes and Their Role in Climate (SPARC).

1990-1991, Served on the USSR National Committee on the Climate Research Program.

1982-1990, Participated in the International Project on Environmental Consequences of Nuclear War (ENUWAR) coordinated by Scientific Committee on Problems of the Environment (SCOPE). Served as an editor of Russian translation of SCOPE 28, Vol. 1, *Environmental Consequences of Nuclear War*, 1985.

TEACHING EXPERIENCE:

Member of the Graduate Programs of Environmental Sciences, Atmospheric Sciences, and Mechanical and

Aerospace Engineering.

1998-present, Lecturing and supervising graduate students, Rutgers University.

1992-1998, Lecturing and supervising graduate students, University of Maryland.

1991-1992, Member of a Permanent Doctoral Committee of the Institute of Mathematical Modeling of the Russian Academy of Sciences.

1985-1992, Associate Professor, Moscow Physical Technical Institute (part time), lecturing and supervising graduate students.

1978-1985, Assistant Professor, Moscow Institute of Radio Electronics and Automation (part time), lecturing.

Courses taught:

2006-2007, Physical Meteorology, Rutgers University

2003-2004, Special Problems in Industrial and System Engineering for Industrial Engineering students, Rutgers University.

2002-2003, Modeling of Climatic Change, Rutgers University.

2001-2002, Fundamental Concepts of Environmental Sciences, Rutgers University.

1999-2000, Modeling of Climatic Change, Rutgers University.

1992-1998, Special lectures at the University of Maryland on climate modeling, ozone effects on climate, aerosol radiative forcing, and aerosol climate impact.

1985-1992, Mathematical Modeling of Climate, Moscow Physical Technical Institute for mechanical engineering, applied math, and physics students.

1978-1985, Numerical Methods for Engineers, Moscow Institute of Radio Electronics and Automation.

Doctoral Degrees Supervised:

Roald Akberov, Ph.D., in progress, Numerical modeling of volcanic aerosols transport and microphysical transformations, Rutgers University.

Manu Ana Thomas, Ph.D., in progress, Effect of Volcanic Aerosols on Climate, Max-Planck Institute for Meteorology, Germany. [with Hans Graf and Claudia Timmreck]

Lesley Ott, Ph.D., 2006, Effect of Deep Convection on Regional and Global Chemical Balances, Department of Meteorology, University of Maryland, College Park. [with Ken Pickering]

Luke Oman, Ph.D., December, 2005, *Effects of high latitude volcanic eruptions on climate*, Department of Environmental Sciences, Rutgers University. [with Alan Robock]

Juan Carlos Antuña, Ph.D., 2002, *Comparison of SAGE II and lidar stratospheric aerosol extinction datasets after the Mt. Pinatubo eruption*, Department of Environmental Sciences, Rutgers University. [with Alan Robock]

Rokjin Park, Ph.D., 2001, *A study of interaction of regional- and global-scale atmospheric chemistry, transport, and climate processes: Modeling, case-studies, comparison with field observations*, Department of Meteorology, University of Maryland, College Park. [with Ken Pickering]

Dmitriy Koryavov, Ph.D., 1989, *Variational Discretization Method for Designing Finite-Difference Models in Geophysical Hydrodynamics*, Moscow Physical Technical Institute, Dogoprudny, Russia.

Dmitriy Turkov, Ph.D., 1988, *GCM Study of Effects of Land Surface on the Earth's Climate*, Computing Center and Institute of Geography of Russian Academy of Sciences, Moscow, Russia.

HONORS AND AWARDS:

2004, NOAA Outstanding Scientific Paper Award for 2003 for the paper by Soden, B. J., R. T. Wetherald, G. L. Stenchikov, and A. Robock, 2002: Global Cooling After the Eruption of Mt. Pinatubo: A Test of Climate Feedback by Water vapor, *Science*, 296, 727-730.

2003, The National Aeronautics and Space Administration Group Achievement Award "in recognition of outstanding accomplishments and contributions to the extremely successful Cirrus Regional Study of Tropical Anvils and Cirrus Layers - Florida Area Cirrus Experiment (CRYSTAL-FACE) based in the Florida Everglades region in July 2002."

1986, Prize of the Council of Ministers of USSR for development of multi-tasking software.

1985, Gold Medal Award from Exhibition of Achievements of National Economy of the USSR.

PUBLIC RECOGNITION:

2006, Presented at the Press Conference on Environmental Consequences of Regional Nuclear Conflicts at the 2006 Fall AGU Meeting in San Francisco on December 11, 2006

2006, Research by Luke Oman, Alan Robock and Georgiy Stenchikov, published September 30 study in *Geophysical Research Letters* (Oman, L., A. Robock, G. L. Stenchikov, and T. Thordarson, 2006: High-Latitude Eruptions Cast Shadow over the African Monsoon and the Flow of the Nile, *Geoph. Res. Lett.*, **33**,

L18711, doi:10.1029/2006GL027665.) has been featured online by NASA at:http://www.nasa.gov/centers/goddard/news/topstory/2006/volcano_nile.html. The story has had multiple pickups worldwide.

2006, ScienCentral News (for ABC) featured the study by Stenchikov, G., N. Lahoti, P. Liou, P. Georgopoulos, D. Diner, and R. Kahn, 2006: Multiscale Plume Transport from Collapse of the World Trade Center on September 11, 2001, *Environmental Fluid Mechanics*, doi: 10.1007/s10652-006-9001-8. The WEB version is at:

http://www.sciencentral.com/articles/view.php3?type=article&article_id=218392847

2006, New Jersey News presented a TV interview with Dr. Stenchikov on the above paper on September 8, 2006. The WEB version is at:

<http://envsci.rutgers.edu/~gera/njnnewsfriday.html>

2006, Daily Targum of March 20 highlighted the paper by Ramaswamy, V., M. D. Schwarzkopf, W. Randel, B. Santer, B. J. Soden, G. Stenchikov, Anthropogenic and natural influences in the evolution of lower stratospheric cooling, *Science*, 311, 1138-1141, 2006.

2006, AGU Journal Highlight Award for the paper by Tom Delworth, V. Ramaswamy, and Georgiy Stenchikov, 2005: The impact of aerosols on simulated ocean temperature and heat content in the 20th century, *Geophys. Res. Lett.*, 10.1029/2005GL024457.

2005, NASA released a “top story” on August 11, 2005 highlighting the paper by Oman, Luke, Alan Robock, Georgiy Stenchikov, Gavin A. Schmidt, and Reto Ruedy, 2005: Climatic Response to High Latitude Volcanic Eruptions, *J. Geophys. Res.*, 110, D13103, doi:10.1029/2004JD005487.

2003, NASA released a “top story” on March 12, 2003 highlighting the paper by Stenchikov et al., Arctic Oscillation response to the 1991 Mount. Pinatubo eruption: Effects on volcanic aerosols and ozone depletion, 107, D24, 4803, doi:10.1029/2002JD002090, 2002

1986, Senior Research Scientist Diploma, Mathematical Modeling, the USSR Academy of Sciences.

VISITING SCIENTIST POSITIONS:

2006, Visiting scientist (2-month appointment) at the NOAA Geophysical Fluid Dynamics Laboratory (GFDL), Princeton, NJ.

2005, Visiting scientist (3-month appointment) at the NOAA Geophysical Fluid Dynamics Laboratory (GFDL), Princeton, NJ.

2005, Visiting scientist (2-week appointment) at NASA Goddard Space Flight Center, Greenbelt, MD.

2004, Visiting scientist (3-month appointment) at the NOAA Geophysical Fluid Dynamics Laboratory (GFDL), Princeton, NJ.

2000, Visiting Summer Scientist (1-month appointment), Max-Planck-Institut für Meteorologie, Hamburg, Germany.

1994, Visiting Summer Scientist (3-month appointment), Max-Planck-Institut für Meteorologie, Hamburg, Germany.

GRANTS:

1. UCAR, Study of Volcanic Impact and ENSO Interaction, October 15, 2005 – December 14, 2006, \$35,000, (Dr. Stenchikov-P.I.)
2. UCAR, Volcanic Test of the Stratosphere-Troposphere Interaction, September 15, 2005 – December 14, 2005, \$45,000, (Dr. Stenchikov-P.I.)
3. IPCC (International Panel for Climate Change) AR4 Model Analysis Project, Evaluation of volcanic climate effects in the IPCC historic runs, September 1, 2004 – May 31, 2005 (no charge) (Dr. Stenchikov-P.I.)
4. NSF/NASA, ATM-0351280, Stratospheric aerosol data assimilation for climate studies, March 15, 2004 – March 14, 2007, \$524,000 (Dr. Stenchikov-P.I.)
5. NJDEP, Regional modeling of PM2.5 atmospheric transport from remote and local sources in NJ, April 15, 2004 – September 14, 2006, \$54,897 (Dr. Stenchikov-P.I.)
6. UCAR, S04-44290, Effect of stratospheric aerosols on climate, January 20, 2004 – April 19, 2004, \$43,344, (Dr. Stenchikov-P.I.)
7. DOE, Decadal Climate Studies with Enhanced Variable and Uniform Resolution GCMs Using Advanced Numerical Techniques, September 15, 2004 – September 14, 2004 (Dr. Stenchikov - Co-I and collaborated at no charge).
8. NASA/UMD, Tropospheric transport processes for trace gases and aerosols: Regional-to-global chemical and climate consequences, November 1, 2003 – October 31, 2006, \$75,000 (Dr. Stenchikov-P.I. on subcontract)
9. NSF, Climatic Effects of the 1783-1784 Laki Volcanic Eruption, August 15, 2003 – August 14, 2007, \$481,789

- (Dr. Robock-P.I.; Dr. Stenchikov-Co-P.I.)
10. NJ Department of Transportation, Emissions and atmospheric transport of PCBs and Hg from stabilized harbor sediments, June 1, 2003 - May 31, 2005, \$223,486 (Dr. Stenchikov-Co-P.I.)
 11. EPA/UMDNJ, Reconstruction of dust/smoke plume that resulted from the collapse of the Twin Towers and the fires that burned at the site of the WTC, September 1, 2002- January 31, 2004, \$35,276 (The project is based at EOHHS; Dr. Stenchikov - P. I. on a subcontract).
 12. NSF, Three-Dimensional Cloud-Resolving Simulations of Trace Gas Transport, Lightning NO_x Production, and Photochemistry in Observed Deep Convection, September 1, 2000 – August 31, 2004, \$180,000 (Dr. Stenchikov-P.I.)
 13. NASA/UMD (subcontract with the University of Maryland), “Chemical Tracer Transport in CRYSTAL-FACE: Mesoscale Forecasts and Cloud Model Analyses”, January 15, 2002 – January 14, 2005, \$70,854 (Dr. Stenchikov-P.I. on subcontract).
 14. NSF, Climate sensitivity to absorbing tropospheric aerosols in experiments with a general circulation model, February 1, 2002-January 31, 2005 (Jan Perlwitz, P.I., The project is based at GISS in New York; Dr. Stenchikov collaborated at no charge).
 15. CEP, Diagnostics and improvement of the turbulence parameterization in the Regional Atmospheric Modeling System (RAMS), August, 2002-July, 2003, \$10,000 (Dr. Stenchikov-P.I.)
 16. NASA/GISS cooperative agreement, 2002-2003, Climate downscaling. (Dr. Robock-P.I., Dr. Stenchikov-Co-I.)
 17. NASA (subcontract with the University of Maryland), “Tropospheric Convection and Stratosphere-Troposphere Exchange: Effects on Photochemistry, Aerosols, and Climate”, April 1, 2000 – March 31, 2003, \$175,000 (Dr. Stenchikov-P.I. on subcontract).
 18. NSF, Volcanic Eruptions and Climate, April 1, 2000-March 31, 2003, \$270,000 (Dr. Robock-P.I., Dr. Stenchikov Co-P.I.).
 19. NASA, Volcanic Eruptions and Climate, April 1, 2000-March 31, 2003, \$180,000 (Dr. Robock, P.I., Dr. Stenchikov Co-P.I.).
 20. NASA, NAG1-2154, SAGE II Validation with a Global Lidar Network, February 1, 1999 – January 31, 2002, \$249,933. (Dr. Robock-P.I., Dr. Stenchikov-Co-I.).
 21. DOE, Variable Resolution GCMs for Regional and Subregional Decadal Climate Change Studies, May 15, 1998 - May 14, 2001, \$450,000, (Dr. Fox-Rabinovitz, P.I., Dr. Stenchikov-Co-I.).
 22. NSF, ATM-9528201, Climatic Effects of Volcanic Eruptions, March 1, 1996 - February 28, 2000, \$165,000. (Dr. Robock, P.I., Dr. Stenchikov-Co-P.I.).
 23. DOE, LWT-6212307506, Great Plains National Institute for Global Environmental Change, The Diurnal Cycle over the Great Plains in the Future: Mechanisms and Spatial Distribution, July 1, 1996 - June 30, 2000, \$205,000. (Dr. Stenchikov-P.I.).
 24. NASA, NAG-53678, Mission to Planet Earth, Tropospheric Convection and Stratosphere-Troposphere Exchange: Effects on Photochemistry, Aerosols, and Climate, January 15, 1997 - January, 14, 2000, \$840,000. Research at the Rutgers University is conducted under subcontract with the University of Maryland (Dr. Stenchikov-P.I.)
 25. NASA, NAGW-4912, NAG-53739, NAG-5-7913, Climatic Effects of Volcanic Eruptions, December 1, 1995 – December 31, 1999, \$210,000. (Dr. Stenchikov-P.I.).
 26. NSF, ATM-9627179, Numerical Simulation of Clouds and Photochemistry for STERAO-A Deep Convection: Nowcasts and Post-mission Diagnostic Studies, July 15, 1996 - July 14, 1998, \$160,000. (Dr. Pickering-P.I., Dr. Stenchikov-Co-I.).
 27. NASA, NCC-555, Development of Stretched Grid GCM for Global and Regional Studies and Applications: Numerical Problem Study Using the ARIES/GEOS Dynamical Core, October 1, 1995- September 30, 1998, \$100,000, (Dr. Fox-Rabinovitz-P.I., Dr. Stenchikov, Co-I.).
 28. NASA, NAG 5-1835, Climate Model Calculations of The Effects of Volcanoes on Global Climate, December 1, 1991 - September 30, 1996, \$439,000, (Dr. Robock-P.I., Dr. Stenchikov, Co-I.).
 29. EPA, Ozone Production in the Non-urban Troposphere: Model Calculations for Case Studies, August 1, 1992 - April 30, 1996, \$321,273, (Dr. Dickerson, P.I., Dr. Stenchikov, Co-I.).

SERVICE

For University:

Chair of the Department of Environmental Sciences Computer Committee, 2005 – present.

Member of the Research Subcommittee of the Rutgers University Information Technology Strategic Planning

Committee, 2004-2006.

Panel Reviewer for the EPA Program “STAR Implications of Tropospheric Air Pollution for Surface UV Exposures,” April 27, 2006, Washington, DC.

Member of the Admission Committee for Graduate Program in Atmospheric Sciences, 2006-present.

Member of the Ph.D. committee for Michel Previdi, December 2005, Rutgers University.

Member of the Ph.D. committee for Luke Oman, December 2005, Rutgers University.

Member of the Department of Environmental Sciences search committee for Computer System Administrator, 2005.

Member of the Ph.D. Qualifying Exam Committee for Thomas Atkins, October, 2004, Rutgers University.

Member of the Ph.D. Qualifying Exam Committee for Chaochao Gao, October, 2004, Rutgers University.

Member of the Ph.D. Qualifying Exam Committee for Haibin Li, October, 2004, Rutgers University.

Reviewer on the George H. Cook Scholars Program Study by Megan Linkin, September 2003 – May 2004.

Member of the Department of Environmental Sciences space committee, January, 2003 – present.

Member of the Ph.D. committee for Lifeng Luo, January 2003, Rutgers University.

Member of the M.S. committee for Luke Oman, April 23, 2003, Rutgers University.

Member of Ph.D. qualifying exam committee for Luke Oman, August 25, 2003, Rutgers University.

Member of the M.S. committee for Tao Zeng, July 9, 2002, Rutgers University.

Member of the M.S. committee for Changsub Shim, July 9, 2002, Rutgers University.

Member of the Department Search Committee for Atmospheric Physics Assistant Professor, Rutgers University, February, 2001.

Member of the Ph.D. committee for Rokjin Park, August 2001, University of Maryland.

Member of the M.S. committee for Lori Thompson, December 2001, Rutgers University

Member of the Ph.D. committee for Alex DeCaria, June 2000, University of Maryland.

Member of the Ph.D. comprehensive exam committee for Paul Wishansky, March 23, 1999, Rutgers University.

For Scientific Community and Society:

2006-present, President of the Board of the L’Ambiance Condominium Association (served as a member of the Board since 2002).

1996-present, Paper reviewer for Journal of Geophysical Research, Journal of Atmospheric Sciences, Science, Numerical Methods for Partial Differential Equations, Geophysical Research Letters, Journal of Meteorological Society of Japan, Monthly Weather Review, Journal of Climate, Journal of Hydrometeorology.

1996-present, Proposal reviewer for NASA, National Academy of Sciences (USAID program), National Institute of Global Environmental Change (NIGEC), NSF, Natural Environment Research Council, EPA.

1986-1992, Paper reviewer for IZVESTIYA Academy of Sciences USSR Atmospheric and Oceanic Physics, and USSR Computational Mathematics and Mathematical Physics.

REFEREED JOURNAL ARTICLES

Numerical Modeling of Earth’s Climate and Environmental Flows:

(color distinguishes papers on GLOBAL MODELING, REGIONAL SIMULATIONS, CLOUD-SCALE MODELING, and AIR POLLUTION)

1. Aleksandrov, V.V., Arhipov, P.L., Parhomenko, V.P., Stenchikov, G.L., 1983: Study of the sensitivity of a coupled global ocean-atmosphere model to CO₂ variations, (in Russian) *Izv. Akad. Nauk SSSR, Fizika Atmos. i Okeana* (translated -*Atmospheric and Oceanic Phys.*), **19**, No. 5, 451-458.
2. Aleksandrov, V.V., Stenchikov, G.L., 1984: Numerical modeling of climatic consequences of nuclear war, (in Russian) *Zh. Vychisl. Mat. i Mat. Fiz* (translated -*USSR Computational Math. and Math. Phys.*), **24**, No. 1, 140-144.
3. Thompson, S.L., Aleksandrov, V.V., Stenchikov, G.L., Schneider, S.H., Covey, C., Chervin, R.M., 1984: Global climatic consequences of nuclear war: simulations with three-dimensional models, *Ambio*, **13**, No. 4, 236-243.
4. Aleksandrov, V.V., Stenchikov, G.L., 1985: Calculation of climatic effects of tropospheric aerosols, (in Russian) *Dokl. Akad. Nauk SSSR* (translated - *Trans. of the USSR Academy of Sciences, Earth Science Sections*), **282**, No. 6, 1324-1326.

5. Stenchikov, G.L., 1986: Numerical modeling of nuclear winter accounting for interactive aerosol transport, (in Russian) *Dokl. Akad. Nauk SSSR* (translated - *Trans. of the USSR Academy of Sciences, Earth Science Sections*), **287**, No. 3, 598-602.
6. Ganopol'skiy, A.V., Stenchikov, G.L., 1987: Effect of dynamic cooling of the upper ocean layer on climate relaxation in course of nuclear winter, (in Russian) *Dokl. Akad. Nauk SSSR* (translated - *Trans. of the USSR Academy of Sciences, Earth Science Sections*), **294**, No. 3, 564-568.
7. Krenke, A.N., Stenchikov, G.L., Turkov, D.V., 1991: Study the role of land surface in climate change using a global climate model, (in Russian) *Izv. Akad. Nauk SSSR, Geographic series* (translated - *Soviet Geography*), No. 5, 23-34.
8. Groisman, Pavel Ya., Thomas R. Karl, Richard W. Knight, and Georgiy L. Stenchikov, 1994: Changes of snow cover, temperature and radiative heat balance over the Northern Hemisphere, *J. Climate*, **7**, 1633-1656.
9. Stenchikov, Georgiy L. and Alan Robock, 1995: Diurnal asymmetry of climatic response to increased CO₂ and aerosols: forcings and feedbacks, *J. Geophys. Res.*, **100**, 26,211-26,227.
10. Ellis, Jr., W. G., A. M. Thompson, S. Kondragunta, K. E. Pickering, G. Stenchikov, R. R. Dickerson, and W.-K. Tao, 1995: Potential ozone production following convective transport based on future emission scenarios, *Atmospheric Environment*, **30**, 667-672.
11. Robock, Alan, Karl E. Taylor, Georgiy L. Stenchikov, and Yuhe Liu, 1995: GCM evaluation of a mechanism for El Niño triggering by the El Chichón ash cloud, *Geophys. Res. Lett.*, **22**, 2369-2372.
12. Stenchikov, G., R. Dickerson, K. Pickering, W. Ellis, B. Doddridge, S. Kondragunta, O. Poulida, J. Scala, W.-K. Tao, 1996: Stratosphere-Troposphere Exchange in a Mid-Latitude Mesoscale Convective Complex: Part 2, Numerical Simulations, *J. Geophys. Res.*, **101**, 6837-6851.
13. Stenchikov, G., K. Pickering, O. Poulida, R. Dickerson, 1997: Reply to Comment (by B. Vonnegut) on "Stratosphere-troposphere exchange in a midlatitude mesoscale convective complex, 1, Observations" by O. Poulida et al. and "Stratosphere-troposphere exchange in a midlatitude mesoscale convective complex, 2, Numerical simulations" by G. Stenchikov et al., *J. Geophys. Res.*, **102**, 23,587-23,588.
14. Dickerson, R. R., S. Kondragunta, G. Stenchikov, K. L. Civerolo, B. G. Doddridge, B. N. Holben, 1997: The Impact of Aerosols on Solar Ultraviolet Radiation and Photochemical Smog, *Science*, **278**, 827-830.
15. Stenchikov, Georgiy L., Ingo Kirchner, Alan Robock, Hans-F. Graf, Juan Carlos Antuña, R. G. Grainger, Alyn Lambert, and Larry Thomason, 1998: Radiative forcing from the 1991 Mount Pinatubo volcanic eruption, *J. Geophys. Res.*, **103**, 13,837-13,857.
16. Kirchner, I., G. Stenchikov, H. Graf, A. Robock, J. Antuña, 1999: Climate Model Simulation of Winter Warming and Summer Cooling Following the 1991 Mount Pinatubo Volcanic Eruption, *J. Geophys. Res.*, **104**, 19,039-19,055.
17. Andronova, N., E. Rozanov, F. Yang, M. Schlesinger, G. Stenchikov, 1999: Radiative forcing by volcanic aerosols from 1850 through 1994, *J. Geophys. Res.*, **104**, 16,807-16,826.
18. Ghan, S., R. Cederwall, D. Cripe, J. Hack, S. Iacobellis, S. Klein, S. Krueger, M. Leach, D. Randall, A. Robock, L. Rotstayn, G. Stenchikov, Y. Sud, G. Walker, S. Xie, K.-M. Xu, J. Yio, M. Zhang, 2000: An intercomparison of Single Column Model simulations of summertime convection at a midlatitude site, *J. Geophys. Res.*, **105**, 2091-2124.
19. DeCaria, Alex J., Kenneth E. Pickering, Georgiy L. Stenchikov, John R. Scala, Jeffrey L. Stith, James E. Dye, Brian A. Ridley, Pierre Laroche, 2000: A cloud-scale model study of lightning-generated NO_x in an individual thunderstorm during STERAO-A, *J. Geophys. Res.*, **105**, 11,601-11,616.
20. Allen, D., K. Pickering, G. Stenchikov, A. Thompson, Y. Kondo, 2000: A three-dimensional total odd nitrogen (NO_y) simulation during SONEX using a stretched-grid chemical transport model, *J. Geophys. Res.*, **105**, 3851-3876.
21. Ramachandran, S., V. Ramaswamy, Georgiy L. Stenchikov, Alan Robock, 2000: Radiative Impact of the Mt. Pinatubo Volcanic Eruption: Lower Stratospheric Response, *J. Geophys. Res.*, **105**, 24,409-24,429.
22. Rasch, P. J., J. Feichter, K. Law, N. Mahowald, J. Penner, C. Benkovitz, C. Genthon, C. Giannakopoulos, P. Kasibhatla, D. Koch, H. Levy, T. Maki, M. Prather, D. L. Roberts, G.-J. Roelofs, D. Stevenson, Z. Stockwell, S. Taguchi, M. Kritz, M. Chipperfield, D. Baldocchi, P. McMurry, L. Barrie, Y. Balkanski, R. Charfield, E. Kjellstrom, M. Mawrence, H. N. Lee, J. Lelieveld, J. Seinfeld, G. Stenchikov, S. Schwartz, C. Walcek, and D. Williamson, 2000: A comparison of scavenging and deposition processes in global models: Results from the WCCRP Cambridge Workshop of 1995, *Tellus 52B*, 1023-1056.
23. Park, R. J., G. L. Stenchikov, K. E. Pickering, R. R. Dickerson, D. J. Allen, S. Kondragunta, 2001: Regional air

- pollution and its radiative forcing: Studies with a single column chemical and radiation transport model, *J. Geophys. Res.*, **106**, 28,751-28,770.
24. Antuña, J. C., A. Robock, G. L. Stenchikov, L. W. Thomason, and J. E. Barnes, 2002: Lidar validation of SAGE II aerosol measurements after the 1991 Mount Pinatubo Eruption, *J. Geophys. Res.*, **107**, 4194.
 25. Soden, B. J., R. T. Wetherald, G. L. Stenchikov, A. Robock, 2002: Global cooling following the eruption of Mt. Pinatubo: A test of climate feedback of water vapor, *Science*, **296**, 727-730.
 26. Stenchikov, G., A. Robock, V. Ramaswamy, M. D. Schwarzkopf, K. Hamilton, S. Ramachandran, 2002: Arctic oscillation response to the 1991 Mount Pinatubo eruption: Effect of volcanic aerosols and ozone depletion, *J. Geophys. Res.*, **107** (D24), 4803, doi:10.1029/2002JD002090.
 27. Antuña, J. C., A. Robock, G. L. Stenchikov, J. Zhou, c. David, J. Barnes, and L. Thomason, 2003: Spatial and temporal variability of the stratospheric aerosol cloud produced by the 1991 Mount Pinatubo Eruption, *J. Geophys. Res.*, **108** (D20), 4624, doi:10.1029/2003JD003722, 2003.
 28. Hamilton, K., A. Hertzog, F. Vial, G. Stenchikov, 2004: Longitudinal variations of the stratospheric Quasi-Biennial Oscillation, *J. Atmos. Res.*, **61**, 383-402.
 29. Stenchikov, G., K. Hamilton, A. Robock, V. Ramaswamy, and M. D. Schwarzkopf, 2004: Arctic Oscillation response to the 1991 Pinatubo Eruption in the SKYHI GCM with a realistic Quasi-Biennial Oscillation, *J. Geophys. Res.*, **109**, D03112, doi:10.1029/2003JD003699.
 30. Park, R. J., K. E. Pickering, D. J. Allen, G. L. Stenchikov, M. S. Fox-Rabinovitz, 2004: Global simulation of tropospheric ozone using the University of Maryland Chemical Transport Model (UMD-CTM) 1. Model description and evaluation, *J. Geophys. Res.*, **109**, D09301, doi:10.1029/2003JD004266.
 31. Park, R. J., K. E. Pickering, D. J. Allen, G. L. Stenchikov, M. S. Fox-Rabinovitz, 2004: Global simulation of tropospheric ozone using the University of Maryland Chemical Transport Model (UMD-CTM) 2. Regional transport and chemistry over the Central United States using a stretched grid, *J. Geophys. Res.*, **109**, D09301, doi:10.1029/2003JD004269.
 32. Miguez-Macho, G., G. L. Stenchikov, and A. Robock, 2004: Spectral Nudging to Eliminate the Effects of Domain Position and Geometry in Regional Climate Model Simulations, *J. Geophys. Res.*, **109**, D13104, doi:10.1029/2003JD004495.
 33. Landrigan, P. et al., Health and Environmental Consequences of the World Trade Center Disaster, 2004: *Environmental Health Perspectives*, **112**, 731-739.
 34. Huber, A., P. Georgopoulos, R. Gilliam, G. Stenchikov, S.-W. Wang, B. Kelly, and H. Feingersh, 2004: Modeling Air Pollution from the Collapse of the World Trade Center and Assessing the Potential Impacts on Human Exposures, *Environmental Manager*, 35-40.
 35. Miguez-Macho, G., G. L. Stenchikov, and A. Robock, 2005: Spectral Nudging to Improve Climate Downscaling over North America Using the Regional Atmospheric Modeling System (RAMS), *J. Climate*, **18**, 1227-1246.
 36. Stenchikov, G., K. Pickering, A. DeCaria, W.-K. Tao, J. Scala, L. Ott, D. Bartels, T. Matejka, 2005: Simulation of the fine structure of the July 12, 1996 STERAO-A storm accounting for effects of terrain and interaction with mesoscale flow, *J. Geophys. Res.*, **110**, D14304, doi:10.1029/2004JD005582.
 37. DeCaria, A., K. Pickering, G. Stenchikov, L. Ott, Lightning-generated NO_x and its Impact on Tropospheric Ozone Production, 2005: A 3-D Modeling Study of a STERAO-A Thunderstorm, *J. Geophys. Res.*, **110**, D14303, doi:10.1029/2004JD005556.
 38. Oman, Luke, Alan Robock, Georgiy Stenchikov, Gavin A. Schmidt, and Reto Ruedy, 2005: Climatic Response to High Latitude Volcanic Eruptions, *J. Geophys. Res.*, **110**, D13103, doi:10.1029/2004JD005487.
 39. Thomas L. Delworth, V. Ramaswamy, and Georgiy L. Stenchikov, 2005: The impact of aerosols on simulated ocean temperature, heat content, and sea level in the 20th century, *Geophys. Res. Lett.*, 10.1029/2005GL024457.
 40. Ramaswamy, V., M. D. Schwarzkopf, W. Randel, B. Santer, B. J. Soden, G. Stenchikov, 2006: Anthropogenic and natural influences in the evolution of lower stratospheric cooling, *Science*, **311**, 1138-1141.
 41. Stenchikov, G., K. Hamilton, R. J. Stouffer, A. Robock, V. Ramaswamy, B. Santer, and H.-F. Graf, 2006: Arctic Oscillation response to Volcanic Eruptions in the IPCC AR4 Climate Models, *J. Geophys. Res.*, **111**, D07107, doi:10.1029/2005JD006286.
 42. T. R. Knutson, T. L. Delworth, K. W. Dixon, I. M. Held, J. Lu, V. Ramaswamy, D. Schwarzkopf, G. Stenchikov, and R. J. Stouffer, 2006: Assessment of Twentieth-Century Regional Surface Temperature Trends using the GFDL CM2 Coupled Models, *J. Climate*, **19**, 1624-1651.
 43. Oman, Luke, Alan Robock, Georgiy Stenchikov, Thorvaldur Thordarson, Dorothy Koch, Drew Shindell, and

- Chaochao Gao, 2006: Modeling the distribution of the volcanic aerosol cloud from the 1783-1784 Laki eruption, *J. Geophys. Res.*, **111**, D12209, doi:10.1029/2005JD006899.
44. Stenchikov, G. N. Lahoti, P. Liou, P. Georgopoulos, D. Diner, and R. Kahn, 2006: Multiscale Plume Transport from Collapse of the World Trade Center on September 11, 2001, *Environmental Fluid Mechanics*, doi: 10.1007/s10652-006-9001-8.
 45. Oman, L., A. Robock, G. L. Stenchikov, and T. Thordarson, 2006: High-Latitude Eruptions Cast Shadow over the African Monsoon and the Flow of the Nile, *Geoph. Res. Lett.*, **33**, L18711, doi:10.1029/2006GL027665.
 46. Ginoux, P., L. H. Horowitz, V. Ramaswamy, Igor V. Geogdzhayev, Brent N. Holben, Georgiy Stenchikov, Xuexi Tie, 2006: Evaluation of Aerosol Distribution and Optical Depth in GFDL Coupled Model, *J. Geophys. Res.*, **111**, D22210, doi:10.1029/2005JD006707.
 47. Toon, O., B. A. Robock, L. Oman, Turco, C. Bardeen, and G. Stenchikov, 2006: Consequences of regional scale nuclear conflicts and acts of individual nuclear terrorism, *Atmos. Chem. Phys. Discuss.*, **6**, 11745-11816, <http://www.copernicus.org/EGU/acp/acpd/6/11745/acpd-6-11745.htm>.
 48. Robock, A., L. Oman, G. Stenchikov, O Toon, C. Bardeen, R. Turco, Climatic consequences of regional nuclear conflicts, *Atmos. Chem. Phys. Discuss.*, **6**, 11817-11843, <http://www.copernicus.org/EGU/acp/acpd/6/11817/acpd-6-11817.htm>.
 49. Totten, L., G. Stenchikov, C. Gigliotti, N. Lahoti, and S. Eisenreich, 2006: Measurement and Modeling of Urban Atmospheric PCB Concentrations on a Small Spatial Scale, *Atmospheric Environment*, in press.
 50. Ott, Lesley E., Kenneth E. Pickering, Georgiy L. Stenchikov, Heidi Huntrieser, and Thorsten Fehr, 2006: Effects of lightning NO_x production during the July 21 EULINOX storm studied with a 3-D cloud-scale chemical transport model, *J. Geophys. Res.*, submitted.
 51. Gao, C., L. Oman, A. Robock, and G. Stenchikov, 2006: Atmospheric volcanic loading derived from bipolar ice cores accounting for the spatial distribution of volcanic deposition, *J. Geophys. Res.*, submitted.

Fluid Dynamics and Numerical Methods:

52. Aleksandrov, V. V. and Stenchikov, G. L., 1975: Study of a self similar solution for a strong explosion in the atmosphere with a weak effect of thermal radiation on gas flow, (in Russian) *Zh. Vychisl. Mat. i Mat. Fiz.* (translated - *USSR Computational Math. and Math. Phys.*), **15**, No. 4, 985-998.
53. Aleksandrov, V. V. and Stenchikov, G. L., 1975: Study of effect of thermal radiation on gas flow in a strong explosions at large times, (in Russian) *Prikl. Matematika i Mehanika* (translated - *J. Appl. Math. and Mech.*), **39**, No. 2, 246-252.
54. Aleksandrov, V.V., Stenchikov, G.L., 1976: Differential approximation for an integral-differential equation for evolution of plasma turbulence, (in Russian) *Zh Vychisl. Mat. i Mat. Fiz.* (translated - *USSR Computational Math. and Math. Phys.*), **16**, No. 3, 809-813.
55. Stenchikov, G.L., 1976: Asymptotic solution of the first order quasi linear equation describing evolution of plasma turbulence, (in Russian) *Prikladnaya Matematika i Mehanika* (translated- *J. Appl. Math. and Mech.*), **40**, No. 5, 823-833.
56. Andreev, N.E., Silin, V.P., Stenchikov, G.L., 1979: Numerical method for solution of Vlasov's kinetic equation based on combination of particles-in-cell and water-bag methods, (in Russian) *Zh. Prikl. Mat. i Mat. Fiz.* (translated -*USSR Computational Math. and Math. Physics*), **19**, No. 1, 165-173.
57. Stenchikov, G.L., 1984: Anomalous thermal waves in plasma, (in Russian) *Zh. Vychisl. Mat. i Mat. Fiz.* (translated - *USSR Computational math. and Math. Phys.*), **24**, No. 11, 1675-1685.
58. Koryavov, D. P., Stenchikov, G. L., 1987: On variational-difference schemes of the geophysical hydrodynamics in Euler's coordinates (in Russian), *Contributions on applied mathematics*, Moscow, Computing Center of the USSR Academy of Sciences, 32 pp.
59. Koryavov, D. P., Stenchikov, G. L., Stepanov, D. S., 1989: Spectral-difference algorithm for simulations of two-dimensional flow of isothermal plasmas (in Russian), *Modeling of the control processes and data processing*, Moscow, Moscow Physical-Technical Institute, 114-118.
60. Prigarin, V. E., Stenchikov, G. L., Frolkis, V. A., 1990: Calculation of the radiation transport in polluted and cloudy atmosphere: description of the model (in Russian), *Contributions on applied mathematics*, Computing Center of the USSR Academy of Sciences, 14 pp.
61. Fox-Rabinovitz, Michael. S., Georgiy L. Stenchikov, Max. J. Suarez, Larry L. Takacs, 1997: A finite-difference GCM dynamical core with a variable resolution stretched grid, *Monthly Weather Review*, **125**, 2943-2968.

62. Fox-Rabinovitz, M., G. Stenchikov, M. Suarez, L. Takacs, R. Govindaraju, 2000: An uniform and variable resolution stretched grid GCM dynamical core with a real orography, *Mon. Wea. Rev.*, **128**, 1883-1898.

Interaction of Laser Light with Plasmas and Plasma Turbulence:

63. Aleksandrov, V. V., Pustovalov, V. V., Silin, V. P., Stenchikov, G. L., Tihonchuk, V. T., 1974: Steady solution of the equation for spectral density of turbulent energy in plasmas, (in Russian) *Izv. Vuzov, Radiofizika* (translated - *Russian Physics Journal*), **17**, No. 10, 1455-1460.
64. Romanov, A.B., Stenchikov, G.L., Tihonchuk V.T., 1975: Study of electric field pulsations in turbulent plasmas, (in Russian) *Kratkie soobscheniya po fizike*, Phys. Lebedev Institute of the USSR AS (translated - *Soviet Phys. Lebedev Inst. Report*), No. 11.
65. Aleksandrov, V.V., Bychenkov V.Y., Stenchikov, G.L., 1976: Study of the decay mechanism of saturation of the parametric instability in plasmas, (in Russian) *Kratkie soobscheniya po fizike*, Phys. Lebedev Institute of the USSR AS (translated - *Soviet Phys. Lebedev Inst. Report*), No. 11, 14-20.
66. Andreev, N.E., Silin, V.P., Stenchikov, G.L., 1977: Saturation of plasma parametric instability in a strong electromagnetic field, (in Russian) *Fizika plazmy* (translated - *Soviet Plasma Physics*), **3**, No. 5, 1088-1096.
67. Andreev, N.E., Silin, V.P., Stenchikov, G.L., 1978: Suppression of fast electron generation in plasmas, (in Russian) *Pis'ma v ZhETF* (translated - *JETP Letters*), **28**, No. 8, 533-537.
68. Andreev, N.E., Silin, V.P., Stenchikov, G.L., 1980: Nonlinear interaction of radiation with outflowing plasmas, (in Russian) *Zh. Eksper. i Teor. Fiz.* (translated - *Soviet phys. JETP*), **78**, No. 4, 1396-1407.
69. Andreev, N.E., Arcimovich, V.L., Kas'yanov, J.S., Korobkin, V.V., Silin, V.P., Silin, P.V., Stenchikov, G.L., 1980: Damping of the second harmonic generation in out-flowing plasmas, (in Russian) *Pis'ma v ZhETF* (translated - *JETP Letters*), **31**, No. 11, 639-642.
70. Andreev, N.E., Arcimovich, V.L., Kas'yanov, J.S., Korobkin, V.V., Silin, V.P., Silin, P.V., Stenchikov, G.L., 1981: Study of spectral - temporal evolution of backscattered radiation from laser plasmas, *Physics letters A*, **82A**, No. 4, 177-180.
71. Andreev, N.E., Silin, V.P., Stenchikov, G.L., 1981: Nonlinear interaction of laser radiation with plasmas accounting for ponder-motor force of electro-magnetic field, *Physica*, North Holland publication company, **2D**, 146-157.
72. Andreev, N.E., Carl, P., Silin, V.P., Stenchikov, G.L., 1981: LAST and MEDUSA - numerical modeling of the interaction of radiation with plasmas, (in Russian) *Kratkie soobscheniya po fizike* (translated - *Soviet Phys. Lebedev. Inst. Report*), No. 9, 57-61.
73. Andreev, N.E., Silin, V.P., Shirokov, A.S., Stenchikov, G.L., 1982: Interactions of laser radiation with plasmas, (in Russian) *Fizika plazmy* (translated - *Soviet Plasma Phys.*), **8**, No. 1, 134-139.
74. Andreev, N.E., Carl, P., Gradov, O.M., Silin, V.P., Stenchikov, G.L., 1982: Nonlinear absorption of laser radiation in out-flowing plasma corona over a target, (in Russian) *Kratkie soobscheniya po fizike*. (translated - *Soviet Phys. Lebedev Inst. Report*), No. 3, 26-32.
75. Andreev, N.E., Silin, V.P., Stenchikov, G.L., 1982: Generation of wave harmonics in laser plasmas, (in Russian) *Fizika plazmy* (translated - *Soviet Plasma Phys.*), **8**, No. 3, 600-606.
76. Andreev, N.E., Sergeev, A.M., Stenchikov, G.L., 1984: Nonlinear absorption of non-ordinary wave in the region of higher hybrid resonance in out-flowing plasmas, (in Russian) *Fizika plazmy* (translated - *Soviet Plasma Phys.*), **10**, No. 1, 21-32.

BOOKS AUTHORED:

1. Parhomenko, V. and Stenchikov, G.L., 1986: *Mathematical Modeling of Climate* (in Russian), Mathematics and Cybernetics Series, Moscow, Znanie, 56 pp.
2. Svirezhev, J.M., G.A. Aleksandrov, P.L. Arkhipov, A.D. Armand, N.V. Belotev, E.A. Denisenko, S.V. Fesenko, V.F. Krapivin, D.O. Logofet, L.L. Ovsjannikov, S.B. Pak, V.P. Pasekov, N.F. Pisarenko, V.N. Rasshevajkin, D.A. Sarancha, M.A. Semenov, D.A. Shmidt, G.L. Stenchikov, A.M. Tarko, M.A. Vedjushkin, L.P. Vilkovala, and A.A. Voinov, 1990: *Gotterdämmerung Globale Folgen eines atomaren Konflikts* (in German), Akademie-Verlag Berlin, 261 pp.

BOOKS EDITED:

1. Russian translation of SCOPE 28, Vol. 1, *Environmental Consequences of Nuclear War*, 1985.

REFEREED BOOK CHAPTERS:

1. Andreev, N. E., Silin, V. P., Stenchikov, G. L., 1980: Dynamics of the parametric plasma turbulence (in Russian), In: *Interaction of Strong Electromagnetic Waves With Collision-less Plasma*, Gorkiy, Institute of Applied Physics of the USSR AS, 156-185.
2. Stenchikov, G. L., 1985: Climatic consequences of nuclear war: Computational experiments with the hydrodynamic climate model of the Computing Center of the USSR Academy of Sciences, In: *The Night After*, Moscow, Mir, 53-82.
3. Stenchikov, G. L., 1986: Climatic consequences of nuclear war: computer experiments with the hydrodynamics climate model of the Computing Center of the USSR AS (in Russian), In: *Climatic and Biological Consequences of Nuclear War*, Moscow, Nauka, 66-100.
4. Egorov, S. A., Paschenko, V. P., Stenchikov, G. L., 1987: The graphic interface for the personal computer user for processing data of numerical experiments with climate models (in Russian), In: *Cybernetics and Computer Technique*, Moscow, Nauka, 287-295.
5. Stenchikov, G. L., 1987: Numerical experiments with the climate model of the Computing Center of the USSR AS (in Russian), In the book: *Problems of Applied Mathematics and Informatics*, Moscow, Nauka, 125-137.
6. Stenchikov, G. L., Stepanov, D. S., 1989: Modeling of climate processes (in Russian), In: *Methods of Description and Investigation of Complex Systems*, Moscow, Nauka, 74-98.
7. Stenchikov, G. L., 1989: Computer modeling of the global behavior of the atmosphere-ocean system and its sensitivity to the anthropogenic effects, *Europhysics Study Conference on Induced Critical Conditions in the Atmosphere*, Ed. A.Tartaglia and M.Vadacchino. World Scientific, 84-121.
8. Arhipov, P. L., Prigarin, V. E., Rykov, V. V., Stenchikov, G. L., Shilkova, S. V., 1990: Numerical modeling of the influence of the aerosol pollution and greenhouse gases on climate, (in Russian) in *Problems of the Safety Development of the Nuclear Energetic*, Moscow, Nauka, 84-88.
9. Stenchikov, G. L., 1991: Computer experiments with a coarse-grid hydrodynamic climate model, *Greenhouse-Gas-Induced Climatic Change: A Critical Appraisal of Simulations and Observations*. Ed. M.E. Schlesinger, Elsevier Science Publishers B.V., Amsterdam, 63-68.
10. Stenchikov, G. L., 1992: Simulation of large-scale anthropogenic effects on climate, in *Modern Problems in Computational Aerohydrodynamics*. Ed. A.Dorodnicyn, P.Chushkin, Mir Publishers, Moscow, CRC Press, London, 1992, 301-338.
11. Stenchikov, G. L., 1992: Numerical modeling of the climate system evolution and its sensitivity to anthropogenic impacts, *Theory and Methods of Geographical Prognosis: Possibilities and Methods*, Moscow, Nauka, 59-87.
12. Stenchikov, G., 2003: Nuclear Winter, *Global Studies Encyclopedia*, I. I Mazour, I. N. Chumakov, and W. C. Gay (Ed.), 592 pp. (in English and in Russian), TsNPP "Dialog", Moscow, Russia, Raduga Publishers, 377-379 (1298-1300 in Russian Edition).
13. Ramaswamy, V., S. Ramachandran, G. Stenchikov, and A. Robock, 2006: A model study of the effect of Pinatubo volcanic aerosols on stratospheric temperatures, *Chapter 6 of Frontiers of Climate Modeling*, J. Kiehl and V. Ramanathan (eds.) (Cambridge Univ. Press, New York), 152-178.

OTHER PUBLICATIONS:

1. Andreev, N. E., Silin, V. P., Stenchikov, G. L., 1978: Plasma deformation by pondermotor force and accompanying effects (in Russian), *Preprint N 226, Phys. Lebedev Institute of the USSR AS*, 19 pp.
2. Andreev, N. E., Silin, V. P., Stenchikov, G. L., 1979: Nonlinear interaction of radiation with plasmas accounting for of density by pondermotor force (in Russian), *Preprint N 113, Phys. Lebedev Institute of the USSR AS*, 29 pp.
3. Aleksandrov, V. V., Stenchikov, G.L., 1983: On the modeling of the climatic consequences of the nuclear war, *The proceedings on applied mathematics the USSR Academy of Sciences*, Computing center, 21 pp.
4. Stenchikov, G.L., 1985: Mathematical modeling of climate, (in Russian) *Priroda*, No. 6, 39-50.
5. Aleksandrov, V.V., Stenchikov, G.L., 1985: Nuclear winter - numerical experiment, (in Russian) *Zemlya i Vselennaya (Earth and Universe)*, No. 4, 26-30.
6. Aleksandrov, V. V., Moiseev, N. N., Skorohodov, S. L., Stenchikov, G. L., 1984: The recent studies of environmental consequences of a nuclear war (in Russian), *Report of the Computing Center of AS USSR*, 107 pp.
7. Stenchikov, G. L., 1985: Climatic consequences of nuclear war: injections and spread of the optically active

- pollutants in the atmosphere (in Russian), *Contributions on applied mathematics AS USSR*, Computing Center of the USSR AS, 34 pp.
8. Stenchikov, G. L., 1985: Numerical modeling of the influence of the atmospheric pollution on climate and nature, *The proceedings on applied mathematics the USSR AS*, Computing center of the USSR AS, 19 pp.
 9. Svirezhev, J. M., G. A. Aleksandrov, P. L. Arkhipov, A. D. Armand, N. V. Belotev, E. A. Denisenko, S. V. Fesenko, V. F. Krapivin, D. O. Logofet, L. L. Ovsjannikov, S. B. Pak, V. P. Pasekov, N. F. Pisarenko, V. N. Rasshevajkin, D. A. Sarancha, M. A. Semenov, D. A. Shmidt, G. L. Stenchikov, A. M. Tarko, M. A. Vedjushkin, L. P. Vilkova, and A. A. Voinov, 1985: Ecological and demographic consequences of nuclear war, Ed. Svirezhev, Y.M. *Proceedings on applied mathematics*, Moscow, Computing Center of USSR AS, 267 pp.
 10. Stenchikov, G. L., Carl, P., 1985: Climatic consequences of nuclear war: Sensitivity against large-scale inhomogeneities in the initial atmospheric pollutions, *Preprint of the Academy of Sciences of the German Democratic Republic*, Berlin, 96 pp.
 11. Stenchikov, G. L., 1985: Possible climatic consequences of a nuclear war as a result of injection and spread of optically active impurities in the atmosphere, *Proceedings of the 9th International Cloud Physics Conference*, Tallin, USSR, 952-963.
 12. Arhipov, P. L., Stenchikov, G. L., Turkov, D. V., 1987: Study of land surface effects on climate (in Russian), *Contributions on the applied mathematics*, Moscow. Computing Center of the USSR AS, 24 pp.
 13. Stenchikov, G. L., Turkov, G. L., 1988: Calculation of seasonal regimes of atmospheric circulation (in Russian), *Contributions on applied mathematics*, Moscow, Computing Center of the USSR AS, 27 pp.
 14. Stenchikov, G. L., 1989: Mathematical modeling of the climatic effects of the week aerosol pollution, *Proceedings of the Soviet-American symposium "Atmospheric aerosol and climate"*, USSR, Obninsk, 1989.
 15. Fox-Rabinovitz, Michael. S., Georgiy L. Stenchikov, Max. J. Suarez, Larry L. Takacs, 1996: A finite-difference GCM dynamical core with a variable resolution stretched grid, GAS/JCS, Working Group on Numerical Experimentation, WMO/TD - N0. 734, Rep. # 23, p. 3.13-3.14.
 16. Stenchikov, Georgiy L., Ingo Kirchner, Alan Robock, Hans-F. Graf, Juan Carlos Antuña, Roy Grainger, Alyn Lambert, and Larry Thomason, 1997: *Radiative Forcing from the 1991 Mount Pinatubo Volcanic Eruption*. Report No. 231 (Max-Planck-Institut für Meteorologie, Hamburg, Germany), 40 pp.
 17. Kirchner, Ingo, Georgiy L. Stenchikov, Hans-F. Graf, Alan Robock, Juan Carlos Antuña, 1998: *Climate model simulation of Winter Warming and Summer Cooling following the 1991 Mount Pinatubo volcanic eruption*. Report No. 261 (Max-Planck-Institut für Meteorologie, Hamburg, Germany), 35 pp.
 18. Stenchikov, G., S. Gray, M. Gamazaychikov, R. Park, A. Robock, 1998: The Study of Regional Climate and Chemical Processes with Single Column Models, *Proceedings of the Eighth Atmospheric Radiation Measurement (ARM) Science Team Meeting*, March 23-27, Tucson, Arizona, 723-724.
 19. Stenchikov, G., Sensitivity of the Arctic Oscillation to Volcanic Forcing in the IPCC AR4 Models, Reports on Polar and Marine Research, Arctic Climate Workshop, Alfred Wegener Institute for Polar and Marine Research, Potsdam, Germany, 5-7 September 2005, 116-122.

INVITED TALKS:

1. Stenchikov, G. L., 1986: Nuclear Winter. All Moscow Seminar of All Union Society "Znanie," Moscow, USSR, December 9, 1986.
2. Stenchikov, G. L., 1987: Long-term climatic consequences of nuclear war caused by mixing of the ocean upper layer. SCOPE ENUWAR Bangkok Workshop, 9-13 February, 1987.
3. Stenchikov G. L., 1987: Climate consequences of nuclear war: The change of the land surface properties and climate variations. SCOPE ENUWAR Geneva Workshop, 16-20 November, 1987.
4. Stenchikov, G. L., 1988: Mathematical Modeling of Nuclear Winter Effects. 16th Nordic Meteorologists' Meeting, Reykjavik, Iceland, August 6-9, 1988.
5. Stenchikov, G. L., and P. Carl, 1988: First acute phase stress matrix calculations using the CCAS tropospheric general circulation model, SCOPE ENUWAR Moscow Workshop, 21-25 March 1988.
6. Stenchikov, G. L., 1990: Modeling of the anthropogenic impacts on climate, SCOPE Workshop "Effect of climate change on production and decomposition in coniferous forests and grasslands", London, 1990.
7. Stenchikov, G. L., 1991: The problems of simulation of the biota and climate interaction, SCOPE Seminar "Geography of Organic Matter Production/Decomposition", Poland, 1991.
8. Stenchikov, Georgiy L. and Alan Robock, 1993: Climatic Effects due to water vapor amount increase in the stratosphere after the Pinatubo eruption. *EOS Supplement, AGU 1993 Fall Meeting*, 114.

9. Robock Alan, Karl E. Taylor, Georgiy L. Stenchikov, and Yuhe Liu, 1993: GCM Test of Possible Mechanism for El Nino Triggering by the El Chichón Ash Cloud. *EOS Supplement, AGU 1993 Fall Meeting*, 114.
10. Stenchikov Georgiy L., Michael Fox-Rabinovitz, Max Suarez, Lawrence Takacs, 1995: GCM calculations with regional resolution by stretched grids, *Max-Planck Institut fur Meteorologie*, Hamburg, Germany, August 16, 1995.
11. Stenchikov Georgiy L., Alan Robock, Russell R. Dickerson, 1995: Modeling of Climatic Effects and Vertical Distribution of AEROCE-Observed Gases and Aerosols, *AEROCE Workshop*, Miami, Florida, November 18-19, 1995.
12. Stenchikov Georgiy L., Hans-F Graf, Alan Robock, Ingo Kirchner, Juan Carlos Antuña, 1997: Volcanic aerosol perturbation experiments, *GCM-Reality Intercomparison Project for SPARC (GRIPS) Workshop*, Berlin, Germany, March 3-5, 1997.
13. Stenchikov, Georgiy L., R. Dickerson, S. Kondragunta, 1997: Photochemical Forcing of Tropospheric Aerosols and Enhancement of Tropospheric Ozone Production, *Max Planck Institut fur Meteorologie*, Hamburg, Germany, September 11, 1997.
14. Stenchikov, Georgiy L., 1997: Impact of Aerosols on Photochemical Ozone Production, *EOS Investigators Working Group Meeting*, Atlanta, Georgia, November 4-6, 1997.
15. Stenchikov, Georgiy L., 1998: The Effect of Volcanoes on Climate, *Symposium sponsored by the Technology Forum of the Spectroscopy Society of Pittsburgh "Climatic Upheavals: the Implications for Our Society"*, Pittsburgh, PA, January 10, 1998.
16. Pickering, K., and G. Stenchikov, Tropospheric Convection and Stratosphere-Troposphere Exchange: Effects on Photochemistry, Aerosols, and Climate, *Workshop on Chemistry/Climate Interactions*, Goddard Institute for Space Studies, New York, N.Y., May 14-15, 1998.
17. Stenchikov, G., M. Fox-Rabinovitz, M. Gamazaychikov, Physical Parameterizations on a Variable Resolution Grid: Test with a Single Column Model, *The Workshop on Variable Resolution Modeling*, University of Quebec at Montreal, Montreal, Canada, May 14-15, 1998.
18. Stenchikov, G., A. Robock, The diurnal cycle over the Great Plains, *Principal Investigator's Workshop*, Great Plains Regional center for Global Environmental Change, March 29-30, 1999.
19. Robock, A., J. Antuña, G. Stenchikov, SAGE II validation with a global lidar network, *SAGE II Science Team Meeting*, August 16-17, 1999, Hampton University, Hampton VA.
20. Stenchikov, Georgiy, Radiative Forcing and Climate Effects of Volcanic Aerosols, *Seminar at the Marine Sciences Research Center*, State University of New York, Stony Brook, Long Island, N.Y., January 26, 2000.
21. Stenchikov, Georgiy, GCM Simulation of Climate Impact of the 1991 Mt. Pinatubo Eruption, *Climate and Radiation Branch Seminar Series*, NASA Goddard Space Flight Center, February 23, 2000.
22. Stenchikov, Georgiy, Numerical Modeling of Volcano Effect on Climate, *Seminar at the Department of Mechanical and Aerospace Eng.*, Rutgers University, Piscataway, NJ, February 9, 2000.
23. Allen, Dale, Kenneth Pickering, Georgiy Stenchikov, Michael Fox-Rabinovitz, The impact of enhanced regional resolution on trace gas distributions in a global CTM, *Joint Workshop on Regional Climate Modeling*, June 14-16, 2000, Montreal, Canada.
24. Stenchikov, Georgiy, M. Fox-Rabinovitz, K. Pickering, R. Park, Study of interactive effects of convection, clouds, aerosols, and chemistry on regional climate, *Joint Workshop on Regional Climate Modeling*, June 14-16, 2000, Montreal, Canada.
25. Pickering, G. Stenchikov, D. Allen, R. Park, M. Fox-Rabinovitz, Convective transport: Effects on photochemistry and radiative forcing, *NASA/EOS Investigator Working Group Meeting*, January 30-February 1, 2001, Ft. Lauderdale, Florida.
26. Stenchikov, Georgiy and Alan Robock, SKYHI simulations of interactive effects of Mt. Pinatubo volcanic aerosols, QBO, and ozone changes, *GRIPS Workshop*, February 26-28, 2001, Max Planck Institute for Meteorology, Hamburg, Germany.
27. Stenchikov, Georgiy, Modeling of climate impact of the 1991 Mt. Pinatubo eruption, *Seminar at the Climate Research Department*, Potsdam Institute for Climate Impact Research, March 6, 2001, Potsdam, Germany.
28. Stenchikov, Georgiy, Radiative forcing and climate effect of volcanic aerosols, *Seminar at the Department of Physics and Engineering Physics*, Stevens Institute of Technology, March 30, 2001, Hoboken, NJ.
29. Stenchikov, Georgiy and Alan Robock, Volcanic eruptions and climate: Winter warming and summer cooling, *Seminar at the International Pacific research Center*, University of Hawaii at Manoa, April 20, 2001, Honolulu, Hawaii.

30. Stenchikov, Georgiy and Alan Robock, QBO and Pinatubo aerosols effect on stratospheric temperatures, *SAGE II Science Team Meeting*, May 3-4, 2001, Hampton, VA.
31. Robock, Alan, J. Antuña, G. Stenchikov, SAGE II validation with a global lidar network, *SAGE II Science Team Meeting*, May 3-4, 2001, Hampton, VA.
32. Stenchikov, Georgiy, Cloud-resolving simulations of STERAO-A and EULINOX convection, *Seminar at the Institute for Atmospheric Physics*, Deutsches Centrum für Luft und Raumfahrt, July 9, 2001, Oberpfaffenhofen, Germany.
33. Stenchikov, G., A. Robock, K. Hamilton, V. Ramaswamy, M. D. Schwarzkopf, S. Ramachandran, Interaction of volcanic aerosols, ozone changes, and the Quasi-biennial Oscillation determine the atmospheric response to the June 15, 1991 Pinatubo eruption, *Fall AGU Meeting*, San Francisco, December 10-15, 2001.
34. Stenchikov, Georgiy, Arctic Oscillation response to the 1991 Mt. Pinatubo eruption, *Seminar at the Department of Oceanography*, Lamont-Doherty Earth Observatory of Columbia University, January 25, 2002.
35. Stenchikov, Georgiy and Alan Robock, Atmospheric responses and stratosphere-troposphere interactions forced by the 1991 Mt. Pinatubo eruptions, GRIPS workshop, Tsukuba, Japan, March 12-15, 2002.
36. Stenchikov, Georgiy and Alan Robock, Update on PINMIP, GRIPS workshop, Tsukuba, Japan, March 12-15, 2002.
37. Stenchikov, Georgiy, Arctic oscillation response to the 1991 Mt. Pinatubo eruption, *Seminar at the Department of Meteorology*, University of Maryland, April 4, 2002.
38. Stenchikov, Georgiy, Arctic oscillation response to the June 15, 1991 Mt. Pinatubo eruption, *Seminar at the Geophysical Fluid Dynamics Laboratory*, Princeton, April 10, 2002.
39. Stenchikov, G., and K. Hamilton, Cloud-resolving model simulation of Hector and gravity waves up to the lower thermosphere, DAWEX Workshop, University of Hawaii, Honolulu, December 3-5, 2002.
40. Stenchikov, G, K. Pickering, R. Selkirk, CRYSTAL-FACE mesoscale model forecast intercomparison, CRYSTAL-FACE science team meeting, Salt Lake City, Utah, 24-28 February 2003.
41. Stenchikov, G., K. Hamilton, A. Robock, V. Ramaswamy, M. D. Schwarzkopf, Climatic response to the Mt. Pinatubo eruption in the SKYHI GCM with a realistic QBO, 2003 GRIPS Workshop, Washington, DC, March 4-7, 2003.
42. Robock, A., and G. Stenchikov, Mechanisms of forced Arctic Oscillation response to volcanic eruptions, Workshop on the role of the stratosphere in tropospheric climate, Whistler, Canada, April 29 – May 2, 2003.
43. Stenchikov, A. Robock, G., K. Hamilton, V. Ramaswamy, M. D. Schwarzkopf, Stratospheric and tropospheric forcing of the Arctic Oscillation by the 1991 Mt. Pinatubo eruption, XXIII General Assembly of the International Union of Geodesy and Geophysics, Sapporo, Japan, June 30 – July 11, 2003.
44. Robock, A., and G. Stenchikov, Volcanic eruptions and climate: Radiative forcing and dynamical responses, XXIII General Assembly of the International Union of Geodesy and Geophysics, Sapporo, Japan, June 30 – July 11, 2003.
45. Stenchikov, G., K. Hamilton, A. Robock, V. Ramaswamy, M. D. Schwarzkopf, Arctic Oscillation response to the 1991 Pinatubo eruption in the SKYHI GCM with a realistic Quasi-Biennial Oscillation, XXIII General Assembly of the International Union of Geodesy and Geophysics, Sapporo, Japan, June 30 – July 11, 2003.
46. Stenchikov, G., V. Ramaswamy, M. D. Schwarzkopf, Volcanic Climate impact in the GFDL IPCC historic runs, Geophysical Fluid Dynamics CMDT (Couple Model Development Team) seminar series, October 7, 2004.
47. Stenchikov, G., Volcanic Impact on the 20th Century Climate, seminar at NASA Goddard Space Flight Center, Greenbelt, MD, January 26, 2005.
48. Stenchikov, G., Volcanic Test of Arctic Oscillation Sensitivity, IAGA 2005 Scientific Assembly, Toulouse, France, 18 - 29 July 2005.
49. Stenchikov, G., Sensitivity of the Arctic Oscillation to Volcanic Forcing in the IPCC AR4 Models, GLIMPSE Workshop, Alfred Wegener Institute for Polar and Marine Research, Potsdam, Germany, 5-7 September 2005.
50. Stenchikov, G., Radiative and Dynamical Impact of Volcanic Aerosols on Climate, Decadal Variability Workshop, Airlie Center, Warrenton, Virginia, October 17-20, 2005.
51. Stenchikov, G., Simulation of transport and radiative effect of aerosol plumes: From 9/11 to “Nuclear Winter”, *Naval Research Lab.*, April 26, 2006.
52. Stenchikov, G., Volcanic impact on atmospheric composition, temperature, and circulation, Workshop on Climate Variability and Extremes During the Past 100 Years, Gwatt, Switzerland, July 22-26, 2006.
53. Stenchikov, G., Numerical modeling of aerosol plume from the collapse and fire of the World Trade Center on

September 11, 2001, Department of Mechanical and Aerospace Engineering, Rutgers University , October 18, 2006.

CONTRIBUTED TALKS:

1. Stenchikov, G. L. Asymptotic description of the radiative gas flow in strong explosion, 1973: *1st All Union Conference on Radiative Gas Dynamics*, Moscow, Computing Center.
2. Aleksandrov, V. V., Pustovalov, V. V., Silin, V. P., Stenchikov, G. L., Tihonchuk, V. T., 1974: Investigation of the oscillating structure of the plasma turbulence on the bases of the nonlinear differential equation with 3-rd derivative on wave number for spectral density of the noise energy. *2nd International Conference on Plasma Theory*. Kiev, Institute of Theor. Phys. of the Ukrainian AS.
3. Andreev, N. E., Silin, V. P., Stenchikov, G. L., 1979: Generation of strong inner fields, fast electrons and other nonlinear effects in laser produced plasma, *XIII European Conference on interaction laser radiation with matter*, Leipzig, GDR.
4. Andreev, N. E., Baumgartel, K., Gradov O. I., Sauer, K., Silin, V. P., Sunder, D., Stenchikov, G. L., 1979: Non-stationary resonant reflectivity of a plasma under the influence of a strong incident S-polarized wave, *XIII European Conference on interaction laser radiation with matter*, Leipzig, GDR.
5. Andreev, N. E., Silin, V. P., Stenchikov, G. L., 1980: The dynamics of the parametrically turbulent plasma, *International conference on plasma physics*, Nagoya, Japan.
6. Andreev, N. E., Vladimirovsky, A. V., Silin, V. P., Stenchikov, G. L., 1980: The harmonic generation in nonuniform plasma, *International conference on plasma physics*, Nagoya, Japan.
7. Aleksandrov, V. V., Volodina, I. N., Stenchikov, G. L., 1980: Two hemispheric atmospheric global circulation model, *All Union Conference "Modeling of climate and its changes and variations"*, Leningrad, 1980.
8. Andreev, N. E., Arcimovich, V. L., Kasianov, J. S., Korobkin, V. V., Silin, V. P., Silin, P. V., Shirokov, A. S., Stenchikov, G. L., 1981: The interaction efficiency of the laser radiation with the flying away plasma corona, *The tenth European conference on controlled fusion and plasma physics*, Moscow.
9. Stenchikov, G. L., Shadrina, S. V., 1981: Lagrangian description of the vortexes of the cyclone scale in GCM, *All Union Conference "Investigations of the interactions of the meso- and micro scale processes in atmosphere and application of statistical methods in meteorology"*, Alma-Ata.
10. Stenchikov, G. L., 1985: On evaluations of anthropogenic impacts on climate and biota, *All Union Conference "Theory, methodology and practice of the systems analysis"*, Moscow.
11. Stenchikov, G. L., 1985: On the calculation of a climatic fluctuations, *10-th All union School "Theoretical and applied problems of computational mathematics and mathematical physics"*, Riga.
12. Moiseev, N. N., Kuznecov, G. A., Stenchikov, G. L., 1986: The problems of development of the informative and prognostic systems of MAB, *All Union Symposium "Scientific bases of the optimization, prognoses and defending of the environment"*, Moscow.
13. Aleksandrov, V. V., Arhipov, P. L., Parhomenko, V. P., Paschenko, V. P., Stenchikov, G. L., 1986: Investigations of the climatic responses to the changes in the system atmosphere-ocean-sea ice by means of mathematical model of the Computing Center of the USSR AS, *All Union Symposium "Scientific bases of the optimization, prognoses and defending of the environment"*, Moscow.
14. Koryavov, D. P., Stenchikov, G. L., 1986: On nonlinear variational-difference schemes in Euler's coordinates, *All Union School of Young Scientists*, Krasnoyarsk.
15. Koryavov, D. P., Stenchikov, G. L., 1987: Variational approach to the developing of the difference schemes of the shallow water theory, *All Union School " Numerical methods of the mechanics of the continuous media"*, Krasnoyarsk.
16. Stenchikov, G. L., 1989: Computer modeling of the anthropogenic impacts on climate and environment, *International seminars on nuclear war, 9-th Session "The New Emergencies"*, Erice, Italy.
17. Stenchikov, G. L., 1990: Mathematical modeling of the anthropogenic impacts on climate, *International conference "Mathematical modeling and applied mathematics"*, Moscow.
18. Stenchikov, Georgiy L. and Alan Robock, 1993: Causes of diurnal asymmetry in climate change as calculated with a new radiative-convective model. *EOS Supplement, AGU 1993 Spring Meeting*, 77.
19. Stenchikov, G., A. Robock, Y. Liu, and K. Taylor, 1993: Modeling of El Chichón cloud induced atmospheric reaction. *Fourth Workshop on the Community Climate Model*, NCAR, Boulder, Colorado, June 28 - July 1.
20. Stenchikov, Georgiy L., 1993: PC- and DEC station Based GCM for Education and Training in Meteorology, Climate Modeling, and Anthropogenic Impacts Assessments. *International Conference on Computer-aided*

Learning in Meteorology, Hydrology, and Oceanography, Boulder, Colorado, 5 - 9 July.

21. Stenchikov, Georgiy L. and Alan Robock, 1993: Modeling aerosol-cloud-radiation interactions using an improved radiative-convective model. *Gordon Research Conference "Impact of Volcanism on Climate,"* New England College, Henniker, New Hampshire, July 25-30.
22. Stenchikov, Georgiy L. and Alan Robock, 1993: Diurnal asymmetry of the surface air temperature response of radiative-convective model calculations to the effects of CO₂ and aerosol forcing: Cloud and boundary layer process feedbacks. *NOAA/DOE MINIMAX Workshop*, College Park, Maryland, September 27-30.
23. Stenchikov Georgiy, R.P. Dickerson, W. G. Ellis, S. Kondragunta, A. Heymsfield, J. Skala, and W.-K. Tao, 1994: Trace gas transport in a severe storm over North Dakota: Model simulations. *EOS Supplement, AGU 1994 Spring Meeting*, 87.
24. Ellis, Jr., W., G. Stenchikov, R. Dickerson, S. Kondragunta, A. Thompson, K. Pickering, J. Scala, and W.-K. Tao, 1994: Convective enhancement of ozone production based on emissions from the year 2050. *EOS Supplement, AGU 1994 Spring Meeting*, 87.
25. Stenchikov, G. and A. Robock, 1994: Effects of Pinatubo aerosol microphysical transformations on aerosol optical parameters and forcing, *EOS Supplement, AGU 1994 Fall Meeting*, 101.
26. Kondragunta, S., R. R. Dickerson, G. Stenchikov, W. F. Ryan, I. Laszlo, 1995: Sensitivity of calculated photolysis coefficients to actinic flux, *EOS Supplement, AGU 1995 Spring Meeting*, 71.
27. Fox-Rabinovitz, Michael, Georgiy Stenchikov, Max Suarez, Larry Takacs, 1996: A finite-difference GCM dynamical core with a variable resolution stretched grid, *Workshop on Test Cases for Dynamical Cores of Atmospheric General Circulation Models*, Beaver Run Resort Breckenridge, Colorado, June 11.
28. Kirchner, I., H. Graf, G. Stenchikov, A. Robock, 1997: ECHAM4 GCM simulations of the climatic response to the 1991 Pinatubo eruption - Winter warming confirmed, *Proceedings of the First SPARC General Assembly*, Melbourne, Australia, 2-6 December 1996, 645-648.
29. Stenchikov, G., A. Robock, I. Kirchner, H. Graf, 1997: Radiative forcing of climate from 1991 Pinatubo eruption, *Proceedings of the First SPARC General Assembly*, Melbourne, Australia, 2-6 December 1996, 653-656.
30. Kondragunta, S., R. Dickerson, G. Stenchikov, W. Ryan, 1997: The impact of aerosols on urban photochemical ozone production, *Eos Supplement, AGU 1997 Spring meeting*, S91.
31. Georgiy L. Stenchikov, Ingo Kirchner, Alan Robock, Hans-F Graf, Juan Carlos Antuña, R. G. Grainger, Alyn Lambert, and Larry Thomason, 1997: Radiative forcing of climate from the 1991 Mount Pinatubo volcanic eruption, *7th IAMAS International Conference*, Melbourne, Australia, July 1-9, 1997.
32. Kirchner, Ingo, Stenchikov, Georgiy L., Alan Robock, Hans-F Graf, Juan Carlos Antuña, 1997: General circulation model simulations of the climatic response to the 1991 Mount Pinatubo volcanic eruption, *7th IAMAS International Conference*, Melbourne, Australia, July 1-9, 1997.
33. Stenchikov Georgiy L., Alan Robock, Juan Carlos Antuña, Ingo Kirchner, Hans-F Graf, R. G. Grainger, Alyn Lambert, Larry Thomason, 1997: Spectral Optical Characteristics and Radiative Forcing from the Mount Pinatubo Aerosol Cloud, *EOS Supplement, AGU 1997 Fall Meeting*, F109.
34. Alan Robock, Georgiy L. Stenchikov, Ingo Kirchner, Hans-F. Graf, Juan Carlos Antuña, 1997: Climate Model Simulation of Winter Warming Following the 1991 Mount Pinatubo Volcanic Eruption, *EOS Supplement, AGU 1997 Fall Meeting*, F109-F110.
35. Pickering K. E., A. J. DeCaria, G. L. Stenchikov, J. R. Scala, A. M. Thompson, J. L. Stith, B. Ridley, K. Baumann, G. Huebler, D. Parrish, M. Buhr, 1997: Convective Transport Calculations for Trace Gases in STERAO-A, *EOS Supplement, AGU 1997 Fall Meeting*, F125-F126.
36. DeCaria A. J., J. R. Scala, G. L. Stenchikov, K. E. Pickering, J. L. Stith, G. Huebler, S. A. Rutledge, 1997: Cloud Model Simulations of STERAO-A Deep Convection Sensitivity to Initial Conditions, *EOS Supplement, AGU 1997 Fall Meeting*, F126.
37. Kondragunta, S., R. Dickerson, G. Stenchikov, B. Holben, 1997: Impact of aerosols on photochemical smog, *International Symposium on Asian Monsoon and Pollution over the Monsoon Environment*, Indian Institute of technology, New Delhi, India, 2-5 December.
38. Stenchikov, G., I. Kirchner, A. Robock, H.-F. Graf, and J. Antuña, 1998: The Stratospheric Thermal Response to Pinatubo Aerosol and Ozone Depletion, *Third GRIPS Workshop*, Greenbelt, MD, March 3-6.
39. Stenchikov, G., S. Gray, M. Gamazaychikov, R. Park, A. Robock, 1998: The Study of Regional Climate and Chemical Processes with Single Column Models, *Atmospheric Radiation Measurement (ARM) Science Team Meeting*, Tucson, Arizona, March 23-27.

40. Fox-Rabinovitz, M., G. Stenchikov, M. Suarez, L. Takacs, R. Govindaraju, A Stretched Grid Finite-Difference GCM Dynamical Core with a Real Orography: Long-and-medium-term Integrations, *6-th CHAMMP Workshop*, Tennessee, April 27-May 1, 1998.
41. Fox-Rabinovitz, M., L. Takacs, G. Stenchikov, U. Stein, M. Suarez, The Variable Resolution Stretched Grid GEOS GCM: Preliminary Results on Forecast and Climate Integrations, *6-th CHAMMP Workshop*, Tennessee, April 27-May 1, 1998.
42. Gray, S., G. Stenchikov, A. Robock, W. Chen, The role of advective fluxes in the diurnal cycle of surface air temperature in the Great Plains, *EOS Supplement, AGU 1998 Spring Meeting*.
43. Gamazaychikov, M., G. Stenchikov, M. Fox-Rabinovitz, R. Dickerson, K. Pickering, Aerosol radiative effects on dynamical mixing and chemical processes in the planetary boundary layer, *EOS Supplement, AGU 1998 Spring Meeting*.
44. Park, R., G. Stenchikov, K. Pickering, R. Dickerson, A Single Column Chemical Transport Model for Regional Air Pollution Studies, *EOS Supplement, AGU 1998 Spring Meeting*.
45. DeCaria, A., K. Pickering, J. Scala, G. Stenchikov, Model Simulation of Lightning Produced NO_x in a Colorado Thunderstorm, *EOS Supplement, AGU 1998 Spring Meeting*.
46. Stenchikov, G., R. Dickerson, S. Kondragunta, R. Park, The Impact of Aerosols on Solar UV Actinic Flux and Photolysis Rates, *Gordon Research Conference SOLAR RADIATION & CLIMATE*, June 14-19, 1998.
47. Stenchikov, G., I. Kirchner, A. Robock, H.-F. Graf, Radiative forcing and Climate Response from the 1991 Mt. Pinatubo Aerosol Cloud, *International Aerosol Symposium – 4*, S. Petersburg, July 6-9, 1998.
48. Allen, D., K. Pickering, G. Stenchikov, A. Thomason, Yutaka Kondo, A 3-D simulation of NO_x during SONEX using a stretched-grid CTM, *79th AMS Annual Meeting, Dallas, TX*, 10-15 January, 1999.
49. Park, R., G. Stenchikov, K. Pickering, A. Allen, R. Dickerson, M. Gamazaychikov, and S. Kondragunta, Chemical Transport Modeling for Regional Air Pollution and Climate Feedback Studies, *79th AMS Annual Meeting, Dallas, TX*, 10-15 January, 1999.
50. Stenchikov, G., A. Robock, E. Berbery, S. Gray, W. Chen, Test of midlatitude cumulus ensembles and diurnal cycle of advection, temperature, and moisture simulated by regional and global models with ARM data, *ARM Science Team Meeting*, March 22-26, 1999.
51. Stenchikov, G. and A. Robock, Radiative forcing of the Pinatubo aerosol cloud as calculated by four GCMs with different radiative schemes, *10th Conference on Atmospheric radiation: A Symposium with Tributes to the Works of Verner E. Suomi*, American Meteorological Society, 26 June – 2 July 1999, Madison, Wisconsin.
52. Robock, A. and G. Stenchikov, Climate responses to radiative forcing following the 1991 Mount Pinatubo volcanic eruption: Winter warming and summer cooling, *10th Conference on Atmospheric radiation: A Symposium with Tributes to the Works of Verner E. Suomi*, American Meteorological Society, 26 June – 2 July 1999, Madison, Wisconsin.
53. Stenchikov, Georgiy and Roni Avissar, The study of climate downscaling with interactive general circulation and nonhydrostatic regional models, *IUGG 99 (International Union of Geodesy and Geophysics)*, 19-30 July 1999, Birmingham, UK.
54. Robock, A. and G. Stenchikov, Intercomparison of climate model simulations of the response to the 1991 Pinatubo volcanic eruption, *IUGG 99 (International Union of Geodesy and Geophysics)*, 19-30 July 1999, Birmingham, UK.
55. Stenchikov, Georgiy, Alan Robock, S. Ramachandran, Juan C. Antuña, V. Ramaswamy, Hans-F. Graf, Ingo Kirchner, Comparison of the Climate response to the 1991 Pinatubo Eruption as Calculated by ECHAM4 and SKYHI, *EOS Supplement, AGU 1999 Fall Meeting*, F218.
56. Antuña, Juan, Alan Robock, Georgiy Stenchikov, Improved Mount Pinatubo Aerosol Data Set Using Lidar measurements, *EOS Supplement, AGU 1999 Fall Meeting*, F219.
57. DeCaria, Alex, Kenneth Pickering, Georgiy Stenchikov, A Three-Dimensional Cloud-Scale Modeling Study of Lightning Generated NO_x in a Colorado Thunderstorm, *EOS Supplement, AGU 1999 Fall Meeting*, F174.
58. Robock, Alan, Georgiy Stenchikov, S. Ramachandran, V. Ramaswamy, Winter Warming Following Volcanic Eruptions: Observations and Climate Model Simulations of Forced Arctic Oscillation Patterns, *EOS Supplement, AGU 1999 Fall Meeting*, F232.
59. Allen, Dale, Kenneth Pickering, Georgiy Stenchikov, Michael Fox-Rabinovitz, The impact of enhanced regional resolution on trace gas distributions in a global CTM, *EOS Supplement, AGU 1999 Fall Meeting*, 233.
60. Stenchikov, Georgiy, Robert Tate, Rokjin Park, Kenneth Pickering, Study of interactive effects of microbial activity and soil chemical emissions on Earth's climate, *The Sixth International Conference on Air-Surface*

Exchange of gases and Particles, July 3-7, 2000, Edinburgh, UK.

61. Stenchikov, Georgiy, Alan Robock, S. Ramachandran, Juan Antuña, V. Ramaswamy, Hans-F. Graf, Ingo Kirchner, GCM Simulation of Climate Impact of the 1991 Mt. Pinatubo Volcanic Eruption, *International Radiation Symposium 2000*, July 24-29, 2000, St. Petersburg, Russia.
62. Stenchikov, G., A. Robock, V. Ramaswamy, S. Ramachandran, Radiative forcing and stratospheric responses in GCM simulations of the impact of the 1991 Mt. Pinatubo eruption, *2-nd SPARC General Assembly*, November 6-10, 2000, Mar del Plata, Argentina, Abstract Volume, 180.
63. Robock, A., G. L. Stenchikov, V. Ramaswamy, S. Ramachandran, Tropospheric responses in GCM simulations of the impact of the 1991 Mt. Pinatubo eruption, *2-nd SPARC General Assembly*, November 6-10, 2000, Mar del Plata, Argentina, Abstract Volume, 58.
64. Stenchikov, G., K. Hamilton, M. D. Schwarzkopf, Alan Robock, V. Ramaswamy, S. Ramachandran, SKYHI Simulations of Interactive Effects of Mt. Pinatubo Volcanic Aerosols and the QBO, *EOS Supplement, AGU 2000 Fall Meeting*, F1304.
65. Stenchikov, G., K. Pickering, A. DeCaria, L. Ott, W.-K. Tao, Cloud-resolving model calculations in support of pollution transport and lightning NO_x studies, *8-th Scientific Assembly of IAMAS*, July 10-18, 2001, Innsbruck, Austria.
66. Stenchikov, G., K. Hamilton, M. D. Schwarzkopf, A. Robock, V. Ramaswamy, S. Ramachandran, SKYHI simulations of arctic oscillation response to variations of the lower stratospheric temperature caused by volcanic aerosols and the quasi-biennial oscillation, *8-th Scientific Assembly of IAMAS*, July 10-18, 2001, Innsbruck, Austria.
67. Pickering, K., A. DeCaria, L. Ott, G. Stenchikov, W.-K. Tao, H. Huntrieser, E. Defer, J. E. Dye, Lightning NO_x studies with a 3-D cloud-scale chemical transport model, *8-th Scientific Assembly of IAMAS*, July 10-18, 2001, Innsbruck, Austria.
68. Stenchikov, G., A. Robock, V. Ramaswamy, M. D. Schwarzkopf, K. Hamilton, S. Ramachandran, Mechanism of Arctic Oscillation response to volcanic aerosols and ozone changes caused by the June 15, 1991 Mt. Pinatubo eruption, *AGU 2001 Fall Meeting*.
69. Robock, A., G. Stenchikov, Climatic effects of the 1991 Mt. Pinatubo eruption, *AGU 2001 Fall Meeting*.
70. Pickering, K., R. Park, D. Allen, G. Stenchikov, Development and evaluation of uniform- and stretched-grid versions of the University of Maryland chemical transport model, *AGU 2001 Fall Meeting*.
71. Park, R., K. Pickering, D. Allen, G. Stenchikov, Deep convection and its chemical consequences over the Central U.S. in a stretched-grid chemical transport model, *AGU 2001 Fall Meeting*.
72. Miguez-Macho, G., A. Robock, G. Stenchikov, C. Weaver, Diagnosis of climate model simulations by downscaling with a high-resolution regional model, *AGU 2001 Fall Meeting*.
73. Stenchikov, G, Mathematical modeling of climatic effects of volcanic aerosols, *Conference "Mathematical models of complex systems and interdisciplinary studies"*, Computing Center of the Russian Academy of Sciences, Moscow, October 23-24, 2002.
74. Stenchikov, G, A. Robock, V. Ramaswamy, M. D. Schwarzkopf, k. Hamilton, S. Ramachandran, L. Oman, Southern Hemisphere Annular Mode Response to the 1991 Mount Pinatubo Eruption, *AGU 2002 Fall Meeting*.
75. Miguez-Macho, G., G. Stenchikov, A. Robock, Modeling the present climate and future climate anomalies over North America using RAMS, *AGU 2002 Fall Meeting*.
76. Shnaydman, V., and G. Stenchikov, Boundary layer model with two-equation turbulence parameterization, *EGS/AGU 2003 Spring Meeting*, April 7-11, 2003.
77. Oman, L., G. Stenchikov., A. Robock, Analysis of stratospheric and tropospheric impacts from the Mt. Pinatubo eruption in GFDL R30 and GISS GCMs, Workshop on the role of the stratosphere in tropospheric climate, Whistler, Canada, April 29 – May 2, 2003
78. Hamilton, K., G. Stenchikov, M. Baldwin, Effects of Polar Vortex Perturbations on Tropospheric Winter Circulation, XXIII General Assembly of the International Union of Geodesy and Geophysics, Sapporo, Japan, June 30 - July 11, 2003.
79. Georgopoulos, P., P. Liou, G. Stenchikov, and S. Wang, Assessing the environmental health impact of emergency events: World Trade Center case study, State of NJ Symposium on Homeland Security, Rutgers University Homeland Security Research Initiative, October 29, 2003.
80. Manu Anna Thomas, Georgiy Stenchikov, Claudia Timmreck, Hans-F. Graf, Ingo Kirchner, Alan Robock, V. Ramaswamy, M. Daniel Schwarzkopf, Kevin Hamilton, and S. Ramachandran, Chemistry Climate Interactions after Large Volcanic Eruptions: I Northern Hemisphere Winter Warming Pattern, Process-oriented validation

of coupled chemistry-climate models- CCM 2003, Grainau/Garmisch-Partenkirchen, Germany, November 17-19, 2003.

81. Pickering, K. E., G. Mott, G. L. Stenchikov, R. Park, Radiative forcing associated with changes in upper tropospheric ozone resulting from deep convection, 2003 Fall AGU Meeting, San Francisco, CA, December 8-12, 2003.
82. Oman, L., A. Robock, G. Stenchikov, Comparing the climatic impact from low latitude versus high latitude volcanic eruptions, 2003 Fall AGU Meeting, San Francisco, CA, December 8-12, 2003.
83. Stenchikov, G. L., A. Robock, K. Hamilton, V. Ramaswamy, M. D. Schwarzkopf, A. da Silva, L. W. Thomason, The impact of the 1991 Mt. Pinatubo volcanic eruption on climate using a vertically resolved stratospheric aerosol data set derived from SAGE II observation, 2003 Fall AGU Meeting, San Francisco, CA, December 8-12, 2003.
84. Ott, L., K. Pickering, G. Stenchikov, R. Lin, B. Ridley, J. Lopez, M. Loewenstein, E. Richard, Trace gas transport and lightning NO_x production during a CRYSTAL-FACE thunderstorm simulated using a 3-D cloud-scale chemical transport model, 2003 Fall AGU Meeting, San Francisco, CA, December 8-12, 2003.
85. Stenchikov, G. and K. Hamilton, A case-study of gravity wave generation by Hector convection, Chapman Conference on Gravity Waves Processes and parameterization, Kohala, Hawaii, 10-14 January, 2004.
86. Stenchikov, G. L., A. Robock, K. Hamilton, V. Ramswamy, M. D. Schwarzkopf, and Arlindo da Silva, SKYHI GCM Simulations of the Climate Response to the 1991 Pinatubo Eruption, Solar Occultation Satellite Science Team Meeting, Boulder, CO, June 15-17, 2004.
87. Stenchikov, G. L., A. Robock, K. Hamilton, V. Ramswamy, and M. D. Schwarzkopf, Study of Stratosphere-Troposphere Dynamic Interaction Forced by a Radiative Effect of Volcanic Aerosols, 3rd SPARC General Assembly, Victoria, BC, Canada, 1-6 August, 2004.
88. Oman, L., A. Robock, G. L. Stenchikov, Climatic Response to High Latitude Volcanic Eruptions, 3rd SPARC General Assembly, Victoria, BC, Canada, 1-6 August, 2004.
89. Hamilton, K., and G. L. Stenchikov, Effect of the Tropical Quasi-biennial Oscillation on Tropospheric Circulation, 3rd SPARC General Assembly, Victoria, BC, Canada, 1-6 August, 2004.
90. Oman, L., A. Robock, and G. Stenchikov, Climatic Response to High Latitude Volcanic Eruptions, International Association of Volcanology and Chemistry of Earth's Interior (IAVCEI) General Assembly, Pucon, Chile, November 14-19, 2004.
91. Oman, L., A. Robock, and G. Stenchikov, Climate Model Simulations of the Effects of the 1783-1784 Laki Eruption, International Association of Volcanology and Chemistry of Earth's Interior (IAVCEI) General Assembly, Pucon, Chile, November 14-19, 2004.
92. Stenchikov, G., V. Ramaswamy, M. D. Schwarzkopf, A. Robock, Interaction of Climate Impacts of Volcanic Eruptions and ENSO, International Association of Volcanology and Chemistry of Earth's Interior (IAVCEI) General Assembly, Pucon, Chile, November 14-19, 2004.
93. Thomas, M., C. Timmreck, M. Giorgetta, G. Stenchikov, Simulation of an Impact of the Mt. Pinatubo Eruption: Sensitivity to Horizontal and Vertical Resolution, International Association of Volcanology and Chemistry of Earth's Interior (IAVCEI) General Assembly, Pucon, Chile, November 14-19, 2004.
94. Stenchikov, G., K. Hamilton, Using Cloud-Resolving Regional Model to Study Gravity Wave Generation by Hector Convection and Their Effect on Large-Scale Circulation, 2004 Fall AGU Meeting, San Francisco, CA, December 13-17, 2004.
95. Barth, M., S. Kim, C. Wang, A. Fridlind, J. Pinty, C. Mari, M. Leriche, S. Cautenet, V. Spiridonov, K. Pickering, L. Ott, G. Stenchikov, Summary of the Chemistry Transport in Deep Convection Cloud Modeling Workshop Intercomparison, 2004 Fall AGU Meeting, San Francisco, CA, December 13-17, 2004.
96. Ott, L., K. Pickering, G. Stenchikov, Lightning NO_x Production and Ozone Photochemistry in the July 10 1996 STERAO Storm Studied with a 3-D Coupled Cloud/Chemistry Model, 2004 Fall AGU Meeting, San Francisco, CA, December 13-17, 2004.
97. Miguez-Macho, G., G. Stenchikov, A. Robock, Spectral Nudging to Eliminate the Effect of Domain Position and Geometry in Regional Climate Model Simulations, 2004 Fall AGU Meeting, San Francisco, CA, December 13-17, 2004.
98. Stenchikov, Georgiy, Volcanic Impact on Arctic Oscillation in the IPCC Historic Runs, Workshop on Analysis of Climate Model Simulations for IPCC AR4, 1-4 March 2005, University of Hawaii, Honolulu.
99. Hamilton, Kevin and Georgiy Stenchikov, Effect of Low Latitude Volcanic Eruptions on Stratospheric and Tropospheric Temperatures, Workshop on Analysis of Climate Model Simulations for IPCC AR4, 1-4 March

2005, University of Hawaii, Honolulu.

100. Perlwitz, Jan, James Hansen, Georgiy Stenchikov, Ron L. Miller, The uncertainty in climate variables in Longwave Forcing and Prediction Experiments with the NASA GISS GCM II' due to the Uncertainty in the Forcing by Soil Dust Aerosols, Spring AGU Meeting, New Orleans, 2005.
101. Georgiy Stenchikov, David Diner, and Ralph Kahn, Alexander Smirnov, and Brent Holben, Transport and Microphysics of Aerosols Released by Collapse and Fire of the World Trade Center on September 11, 2001 as Observed by AERONET and MISR, 2005 Fall AGU Meeting, San Francisco, CA, December 4-9, 2005.
102. Oman, Luke, Alan Robock, Georgiy Stenchikov, Thorvaldur Thordarson, and Chaochao Gao, Modeling the Sulfate Deposition to the Greenland Ice Sheet from the Laki Eruption, 2005 Fall AGU Meeting, San Francisco, CA, December 4-9, 2005.
103. Stenchikov, G., N. Lahoti, P. Liou, P. Georgopoulos, D. Diner, R. Kahn, Multiscale Plume Transport from Collapse of the World Trade Center on September 11, 2001, 14th Joint Conference on the Applications of Air Pollution Meteorology with the A&WMA, 86th Annual Meeting, American Meteorological Society, 29 January - 2 February, 2006, Atlanta, Georgia.
104. T. R. Knutson, T. L. Delworth, K. W. Dixon, I. M. Held, J. Lu, V. Ramaswamy, D. Schwarzkopf, G. Stenchikov, and R. J. Stouffer, 2005: Assessment of Twentieth-Century Regional Surface Temperature Trends using the GFDL CM2 Coupled Models, 18th Conference on Climate Variation, 86th Annual Meeting, American Meteorological Society, 29 January - 2 February, 2006, Atlanta, Georgia.
105. K. E. Pickering, L. Ott, D. Allen, A. DeCaria, G. Stenchikov, and W.-K. Tao, Improving Lightning NOx Parameterizations for Global Chemical Transport Models, Second Conference on Lightning Data, 86th Annual Meeting, American Meteorological Society, 29 January - 2 February, 2006, Atlanta, Georgia.
106. A. Robock, C. Gao, L. Oman, G. Stenchikov, Atmospheric volcanic loading derived from bipolar ice cores, EGU General Assembly 2006, Vienna, Austria, 2-7 April, 2006.
107. G. Stenchikov, D. Diner, R. Kahn, A. Smirnov, and B. Holben, Space- and Ground-based observations and modeling of the aerosol plume from the World Trade Center Collapse and Fire on September 11, 2001, Community Workshop on air quality remote sensing from space: defining an optimum observing strategy, National Center for Atmospheric Research, Boulder, Colorado, February 21-23, 2006.