

Curriculum Vitae Grigory Seregin

Education

M.D.: Leningrad Polytechnical Institute, 1974

Ph.D.: Leningrad Polytechnical Institute, 1979

Dr.Sci.: V.A. Steklov Mathematical Institute, St.Petersburg Branch, 1990

Professor (diploma) in speciality "Applied Mathematics"

Appointments

Assistant Professor, Division of Higher Mathematics, St.Petersburg State Technical University (St.PSTU)(former Leningrad Polytechnical Institute), 1974-1982.

Associate Professor, Division of Higher Mathematics, St.PSTU, 1982-1986.

Associate Professor, Chair of Applied Mathematics, St.PSTU, 1986-1993.

Senior Scientific Researcher, St Petersburg Department of V.A.Steklov Mathematical Institute, 1990-1993.

Professor, Chair of Applied Mathematics, St.PSTU, 1993-2000.

Leading Scientific Researcher, St Petersburg Department of V.A.Steklov Mathematical Institute, 1993-2000.

Head of the Laboratory of Mathematical Physics, St Petersburg Department of V. A. Steklov Mathematical Institute, 2000 -..... .

University Lecturer in Mathematics with the title of Professor, Tutorial Fellow of St Hilda's College, University of Oxford, 2007-2019.

Professor Emeritus of Oxford University and Supernumerary Fellow of St Hildas College, 2019-...

Awards and Honours

Humboldt Research Award, 2002

Sophja Kovalevskaya Prize of the Russian Academy of Sciences, 2003

Pathway Lecture Series in Mathematics, Keio University, Japan, February, 2006

Ordway Distinguished Lecture Series, University of Minnesota, USA, April, 2007.

Invited Speaker, International Congress of Mathematicians, Hyderabad, India, 2010.

Ordway Distinguished Lecture Series, University of Minnesota, USA, October, 2016.

P. L. Chebyshev Prize of St. Petersburg Government, 2022.

Ordway Distinguished Lecture Series, University of Minnesota, USA, April, 2024.

Leverhulme Emeritus Fellowship, 2024-2025.

Students

T. Shilkin, T. Barker, F. Hounkpe, B. Raita.

Postdoctoral associates

G. Koch, D. Breit, K. Abe, J. Burczak, W. Wang, D. Zhou, T. Barker

Visits and Visiting Appointments

University of Trento, Technische Hochschule Darmstadt, University of Jyvaskyla, Universitat des Saarlandes, Universite Paris 7, Institut fur Angewandte Mathematik der Universitat

Bonn, Keio University, Chalmers University of Technology, University of Westminster, Scuola Normale Superiore (Pisa), Iowa State University, Max Plank Institute (Leipzig), University of Parma, Universitat des Saarlandes (DAAD stipend, visiting professorship for the period of 2000, April 1 - 2001, March 31), Courant Institute of Mathematical Sciences (New York), University of Minnesota (visiting professorship for the period of 2001, September 1 - 2002, May 31, and visiting professorship in Spring, 2007), Keio University (visiting professorship for the period of 2003, April 1 - 2004, March 31) Universitat des Saarlandes (Humboldt Research Award for the period of 2004, September 15 - 2005, July 15), University of Chicago, American Institute of Mathematics in Palo-Alto, Arizona State University, Kyoto University (Research Institute of Mathematical Sciences, visiting professorship for the period of 2006, January 5 - 2006, April 14), University of Maryland, University of Bonn, University of Pisa (Italy), Institute Henri Poincaré (Paris), CMAF (Lisbon), Mittag-Leffler Institute (Stockholm). Rutgers University, USA, 2-10 May, 2015. Rice University, Texas A&M University, UC Davis, 22 March-10 April, 2016. Spain, Madrid-Bilbao, 2-22 May, 2016, Ordway Distinguished Lecture Series, University of Minnesota, USA, October, 2016. Public Lecture and Advanced Lectures, Chung-Ang University, Korea, November, 2016. Beijing Normal University, 18 March-15 April, 2018. HKUST, Hong Kong, 24-31 March, 2019. Fudan University and Henan University, China, December, 2019.

Lectures (from 2004)

"Partial Differential Equations in Mathematical Physics" in memory of Olga A. Ladyzhenskaya in Trento (Italy), Oct. 24-30, 2004. "Fabes Lectures on Real Analysis and PDE", Bilbao, Spain, September 9-11, 2004. "Interregional Colloquium of Mathematics" Kaiserslautern, Germany, October 14-15, 2004. "Deterministic and stochastic Navier-Stokes equations", Palo-Alto, American Institute of Mathematics, March 14-18, 2005. Conference "Classics in PDE's", Stockholm, Sweden, June 1-5, 2005". The Fourth International Conference on Differential and Functional Differential Equations, Moscow, Russia, August 14-21, 2005. "Self-similar solutions in nonlinear PDE's", Bedlewo, Poland, September 5-9, 2005. Kyoto Conference on the Navier Stokes equations and related topics, Kyoto, Japan, January 6-10, 2006. COE-workshop on nonlinear PDE's in analysis and geometry, Yokohama, Japan, January 16-18, 2006. "Mathematical Hydrodynamics", Moscow, June 12-17, 2006. Jean Leray Centennial Conference "Topological Methods in Nonlinear Problems, Bedlewo, Poland, June 25-30, 2006. Conference "Geometric Methods in Nonlinear PDE's and Free Boundary problems", St. Petersburg, August 17-20, 2006. "Parabolic and Navier-Stokes equations", Bedlewo, Poland, September 10-17, 2006. The Center for Scientific Computation and Mathematical Modelling (CSCAMM) at the University of Maryland, workshop October 23-26, 2006, on "Challenges of Incompressible Flows at High Reynolds Number". University of Oxford, October 27, 2007, Launch of the Oxford Center for Nonlinear PDE's. University of Bath, March 14, 2008. University of Chicago, April 2, 2008. University of Edinburgh, April 25, 2008, Mini-Symposia in Maxwell Institute. University of Swansea, May 9, 2008. University of Sussex, May 28, 2008. PDE day in the Department of Mathematics. KTH, Stockholm, August 26, 2008. Nordic - Russian Symposium in honour of Vladimir Maz'ya. Scuola Normale Superiore, Pisa, September 25, 2008, Workshop "Navier-Stokes equations: Classical and

generalized models". University of Warwick, October 30, 2008. Centro di Ricerca Matematica Ennio de Giorgi, Pisa, September 2009, intensive research period on "Regularity for non-linear PDES". University of Minnesota, October 2009. London-Paris Analysis Seminar, Paris, Institute of Henry Poincaré, May 31, 2010. Partial Differential Equations and Fluid mechanics University of Warwick, 5-9 July, 2010. International Congress of Mathematics, 19-26 August, 2010, Hyderabad. C.I.M.E. Summer School, 6-11, September 2010, Lecture Course, 5 hours. Mathematics-XXIcentury, PDMI 70th anniversary, St Petersburg, 13-18 September, 2010. Dissipative PDE's in Bounded and Unbounded Domains and Related Attractors, ICMS, 20-24 September 2010. University of Edinburgh, November 22, 2010. "Problems in the Theory of Stability and Differential Equations" MIAN - POMI, St. Petersburg, Russia, December 20 - 22, 2010. "Maximum principles, fractional diffusion and differential or integral inequalities for deterministic and stochastic partial differential equations", Université d'Evry, 19 et 20 janvier 2011. VARGA KALANTAROV 60th Birthday Conference, Istanbul, March 5, 2011. University College of London, March 14, 2011. Polish Mathematical Society, Warsaw, March 17, 2011. Institute of Mathematics, Polish Academy of Sciences, Warsaw, March 21, 2011. Annual Meeting of Russian Academy of Sciences, Moscow, May, 2011. Oxbridge PDE Days, 17-18 April, 2012, University of Cambridge. Workshop "Mathematics of particles and flows", Wolfgang Pauli Institute, Vienna, May 28-June 2, 2012. Workshop "Advances in Analysis of Partial Differential equations", Mittag-Leffler Institute, Stockholm, 9-13 July, 2012. International Winter School on Mathematical Fluid Dynamics, Levico Terme, Italy, December 16-21, 2012, four hours lecture course. International conference on Fluids and Variational Methods", Leipzig, Germany, 28 January - 1st February, 2013. "International Conference on the Mathematical Fluid Mechanics on the occasion of Professor Yoshihiro Shibata's 60th birthday" March 5-8, 2013, Nara, Japan. International conference "Modern problems of mathematics, mechanics, and mathematical physics" dedicated 150-anniversary of V. A. Steklov, Moscow-St Petersburg, Russia, 13-17 May. Talk in the University of Zurich, 5 December, 2013. International Conference "Recent Advances in PDEs and Applications", Levico Terme, Italy, February 17-21, 2014. International Conference "Progress in Nonlinear Partial Differential Equations", Lisbon, May 29-31, 2014. Colloquium of Chebushev Laboratory at St Petersburg, April 8, 2015. Workshop in Honour of Reinhard Farwig's 60th Birthday, Darmstadt, April 22-23, 2015. University of Warwick, Colloquium, May 1, 2015. PDE Conference devoted to current trends in differential equations and geometric analysis, Edinburgh, 24-26 August, 2015. Mathematical Fluid Mechanics: Old Problems, New Trends, Conference in Bedlewo, Poland, 30 August- 5 September, 2015. Workshop "Mathflows", Porquerolles, France, 13 September-18 September, 2015. Workshop "Waves and related fluid models, Clay Mathematical Institute, 28 September-2 October, 2015. Regularity theory for elliptic and parabolic systems and problems in continuum mechanics, Telch, Czech Republic, 27-30, April, 2016. Oxbridge PDE Days, 15-16 March, 2016, University of Cambridge. Conference "Journées EPD, Roscoff, France, 2016. Towards Regularity, Institute of Mathematics, Polish Academy of Sciences (IMPAN), Warsaw, Poland, from September 7-9, 2016. "PDEs in Fluid Mechanics", Warwick 26-30 September, 2016. Workshop "Vorticity, Rotation and

Symmetry (IV) - Complexity, Regularity and Singularities”, Centre International de Rencontres Mathématiques (CIRM) in Luminy (Marseille, France) May 8 - 12, 2017. Workshop ” Irregular transport: analysis and applications”, Basel, 26-30 June, 2017. Paris-London Analysis Seminar, 6 October, 2017. University of Sussex, 4 December, 2017. Workshop at Beijing Normal University, 21-22 March, 2018. Academy of Mathematics and System Sciences, Chinese Academy of Sciences, 28 March, 2018. Capital Normal University, 3 April, 2018. Beijing International Centre for Mathematical Research , Peking University, China, 12 April, 2018. Workshop on Mathematical Fluid Mechanics at Bad Boll, Germany, 7-11 May, 2018. International Conference in honour of Vladimir Mazya, Holon, Israel, 26-31 May, 2019. International Workshop on Multi-Phase Fluids. Waseda University, Japan. 19-22, 2019. Mathflows 2020, Bedlewo-Poland, 8-13 March, 2020. Vorticity, Rotation, and Symmetry (V)-Global results and Nonlinear Phenomena, CIRM, Marseille, France, 26-30 October, 2020.

Professional Activities

Trends in Partial Differential Equations of Mathematical Physics, Obidos (co-organizer, June, 2003). Workshop on the Navier-Stokes equations, Keio University, Yokohama (co-organizer, May 6-8, 2004). Partial Differential Equations in Mathematical Physics, in memory of Olga A. Ladyzhenskaya, G. Hotel Bellavista, Levico T. (co-organizer, Oct. 24-30, 2004). Classics in PDE. A meeting in Honor of Nina Nikolaevna Uraltseva’s 70’tth Birthday, KTH, Stockholm (co-organizer, June 1-4, 2005). Conference on Parabolic and Navier-Stokes equations, Bedlewo, Poland (co-organizer, 10-17 September, 2006). Mathematical Hydrodynamics: Euler Equations and Related Topics, Saint-Petersburg, Russia (co-organizer, June 7-9, 2007). ”Parabolic and Navier-Stokes Equations 2008, in honor of V.A. Solonnikov ”, Bedlewo, Poland (co-organizer, August 31 - September 6, 2008). Workshop ”Navier-Stokes equations: Classical and generalized models”, Scuola Normale Superiore, Pisa (co-organizer, September 25, 2008). Workshop ”Mathematical Aspects of Hydrodynamics”, Oberwolfach (co-organizer, July 19 - 25, 2009). PDE’s section, the 16th International Congress on Mathematical Physics, Prague, (co-organizer, August 3-8, 2009). Workshop ”Advances in Analysis of Partial Differential equations”, Mittag-Leffler Institute, Stockholm (co-organizer, 9-13 July, 2012). Workshop ”Mathematical Aspects of Hydrodynamics”, Oberwolfach (co-organizer, August 13 - 18, 2012). Conference on Recent trends in classical and complex fluids, University of Sussex, Falmer (UK) September 5-7, 2013, co-organizer. Mathematical Hydrodynamics and Parabolic Equations, in honour of Vsevolod Solonnikov on the occasion of his 80th birthday, co-organizer, September 11-14, 2013, St. Petersburg, Russia. The Navier-Stokes Equations and Related Topics, co-organizer, September 29 - October 1, 2013, Clay Mathematics Institute Mathematical Institute University of Oxford. Workshop ”Mathematical Aspects of Hydrodynamics”, Oberwolfach (co-organizer, August 10 - 14, 2015). Associated Editor of Journal of Mathematical Fluid Mechanics from March, 2016. ”Mathematical Analysis of Incompressible Fluid Flows: A Sussex School and Workshop on the Navier-Stokes and Euler Equations”, September 18-22, 2017 University of Sussex Brighton, UK (a member of the Scientific Committee).

Memberships

A member of National Committee of Mathematicians of the Russian Federation. A member of Program Committee of BSc program in Mathematics and TCS of St Petersburg State University.

Editorial Work

The co-editor of the journal "Zapiski Nauchn. Seminar. POMI" volumes 288(2002), 295(2003), 306(2003), 310(2004), 318(2004), 336(2006), 362(2008), 370(2009). The co-editor of the journal "Zapiski Nauchn. Seminar. POMI" volumes 288(2002), 295(2003), 306(2003), 310(2004), 318(2004), 336(2006), 362(2008), 370(2009). Member of the editorial board of the journal "Applications of Mathematics". The co-editor of the Volume "Trends in Partial Differential Equations of Mathematical Physics", Series: Progress in Nonlinear Differential Equations and Their Applications, Vol. 61, 2005, XIV, 282 p. The co-editor of the Volume "Trends in Partial Differential Equations of Mathematical Physics", Series: Progress in Nonlinear Differential Equations and Their Applications, Vol. 61, 2005, XIV, 282 p. An associated Editor of Journal of Mathematical Fluid Mechanics from March, 2016.

Publications

120 papers, 2 book.

<http://www.ams.org/mathscinet/search/publications.html?pg1=INDI&s1=293381>

Selected Grants

RFBI (Russian Foundation of Basic Researches), 03-01-00638 (2004-2007), 08-01-00372-a (2008-2010), 11-01-00324-a (2011-2013), 14-01-00306 (2014-2016), PI, 17-01-00099a (2017-2019), PI. JSPS (Japan Society for the Promotion of Science), 2004, April 01 -May 31, 2004. CRDF (the United States Civilian Research and Development Foundation), RU-M1-2596-ST-04, (01.06.2004-31.05.2006), PI. INTAS, 96-0835, 01.10.97-01.10.00, PI. Ministry of Education and Science of the Russian Federation (grant 14.Z50.31.0037)."