RESUME

Prof. Sergey V. Sheshenin

PERMANENT JOB: Faculty of Mechanics & Mathematics, Lomonosov Moscow State University (MSU), Moscow 119992, Russia.
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EDUCATION

Faculty of Mech. & Math: Graduate study: 1978-1980
Undergraduate and MS study: 1973-1978, first-class diploma for academic achievements: average mark 4.95 of 5.0

QUALIFICATIONS:

Habilitation: Doctor of Physics & Mathematics (Faculty of Mech. & Math., 1990). The thesis title: Numerical Analysis of Quasi Static Boundary-Value Problems of Solids
Candidate of Physics & Mathematics (Faculty of Mech. & Math, 1980). The thesis title: Numerical Solution to Some Elasticity Boundary-Value Problems

EMPLOYMENT HISTORY

Lomonosov Moscow State University, Faculty of Mechanics & Mathematics:

Duration	Position
Department of Plasticity Theory	
9/2017 - present	Professor
Department of Composites Mechanics	
12/1990-9/2017	Professor, vice-head
1/1989-12/1990	Docent
Department of Elasticity	
1/1986-1/1989	Assistant
1/1981-1/1986	Junior Research Scientist

PROFESSIONAL SOCIETIES:

- GAMM (2000)
- Russian National Committee On Theoretical And Applied Mechanics on Mechanics (2011)
- Vice-head of the Dissertation Council on Solid Mechanics (2016), Lomonosov Moscow State University, Faculty of Mechanics & Mathematics
- Scientific secretary of the Dissertation Council on Solid Mechanics (1994) Lomonosov Moscow State University, Faculty of Mechanics & Mathematics
- Member of The Dissertation Council on Solid Mechanics (1991-1994), Lomonosov Moscow State University, Faculty of Mechanics & Mathematics

EDITORIAL BOARDS
Member:
Mekhanika Tverdogo Tela (MTT, Izvestia RAN)
Mechanics of Composite Materials (Kluwer Academic/Plenum Publishers, United States)
Mathematical Modeling and Computational Methods
Reviewer:
Archive of Applied Mechanics (Springer Verlag, Germany)

AWARDS: Moscow University Lomonosov Prize (2005)

FIELDS OF INTERESTS

- Theory of constitutive laws
- Mechanics of laminates. Technological processes simulation. Progressive damaging
- Short-fiber composites. Simulation of resin/particle flow. Prediction of the effective Moduli
- Numerical simulation of disperse composites
- Metamaterials. Asymptotic averaging
- Iterative algorithms for large Linear/non-linear systems. Parallel Algorithms
- FORTRAN/C scientific programming. Forty years of experience in Computational Mechanics. Parallel Algorithms and Parallel Programming
- Numerical methods in heat transfer problems. Boundary problems with phase transformation
- Homogenization. Asymptotic averaging. Application to laminates, inhomogeneous and corrugated plates
- Numerical simulations in Geomechanics
- Modeling of fluid filtration through porous deformable medium with large strains
- Tire Mechanics: rubber-cord modeling and tire numerical simulation
- Simulation of Reinforced Concrete Underground Structures

LECTURING EXPERIENCE

35 years of lecturing for students and postgraduates. Lecturing to regular students and postgraduates at the faculty of Mechanics and Mathematics if not mentioned otherwise:

- Mechanics of Continuous Media (three semesters)
- Numerical methods (two semesters)
- Iterative methods (one semester)
- Computational Mechanics of Solids (for graduated engineers, one semester)
- Non-linear Theory of Elasticity (one semester)
- Variation equations and inequalities (one semester)
- Introduction to Mechanics of Composites (one semester)
- Mechanics of Laminates (two semesters)
- Mechanics of Rubber-Cord (one semester)
- Theory of Constitutive equations (one semester course)
- FEM + ANSYS (two semesters)
- Homogenization of in-plane periodic plates (one semester)
- Finite Element Method (one semester or two semesters)
- FEM in Non-Linear Solid Mechanics (two semesters)
- Mixed Formulations of Boundary-Value Problems (one semester)
- Structural Mechanics (one semester, in Russian and English. Lecturing at Moscow State University and Zhongshan University 2006-2009, China)
- Computational Methods (one semester, in English. Lecturing at Zhongshan University 2006-2009, China)
- Algebra (one semester lecturing in English at TEC de Monterrey 2003, Mexico)
- Physics (one semester lecturing in English at TEC de Monterrey 2003, Mexico)
- Numerical methods (one semester, lecturing at Faculty of Material Science, Moscow State University)

PAPERS PUBLISHED

Have more than 80 papers published. Co-authorship in the book: " Boundary Problem Formulated in Terms of Stress". FAN, 1988, 198p. (In Russian)

SUPERVISION OF STUDENTS

Supervision of graduate students: 8 students defended candidate theses (PhD equivalent)

Research supervisor of more than 60 diploma students (master degree equivalent)

VISITS

Research:
Univ. of Podgorica, Montenegro: 1989, 1990; ICTP, Trieste, Italy: 1996; TU Berlin: 2000, 2003, 2004, 2005, 2010; BAM, Berlin, 2000; Univ. of Erlangen - Nuremberg, 2004; WIAS, Berlin 2005;
Lab. of Applied Mechanics, Univ. of Franch-Comte, Besancon, France, 2000; L'Ecole Polytechnique, Paris, 2001 Michelin, France 2008. Peking and Tsinghua Univ., 2001.
Zhongshan Univ., Guangzhou, China, 2001;

Teaching:
TEC de Monterrey, ITESM, Mexico, 2004; Zhoungshan Univ., Guangzhou, China, 2006, 2007, 2008, 2009

FUNDED RESEARCH

INTAS Projects: #95-525 (participant), #96-2306(team leader);
DAAD stipend, 2004;
Russian Fund for Basic Research (RFBR), team leader: #96-01-00372, #98-01-00488, #02-01-00240, #05-08-65489, #07-01-92111 (joint project RFBR-NSFC), #13-01-00688, #15-01-05887, #19-51-53006 (RFBR-NSFC)
Russian Fund for Basic Research, participant: #05-01-00729, #08-05-00578, #14-01-00317, #14-08-01191
CRDF Grant assistant program, projects with Michelin (team leader): #1440 (2004); #1582 (2006), # 30017 (2009), #19-51-53008 (RFBR-NSFC)

CONTRACT RESEARCH

Department of Chemical Technology and New Materials, 2016 – 2018, #73/01-2015, participant, "Research and development of technology for production heat and chemical resistant pipeline components".

Department of Chemical Technology and New Materials, 2014 – 2016, #02.G25.31.0114, participant, "Development of a high-tech pilot-industrial production of special technological equipment for aircraft engineering using new types of composite materials and innovative approaches to modeling technological processes".

Department of Chemical Technology and New Materials, 2013 – 2015, #1-05-43/02/13, participant, "Development of technology and organization of production of heat-resistant composite materials for production of lightweight complex shape parts used in aerospace engineering, land and sea transport".

COMPUTER EXPERIENCE

Computer systems:
- ✓ PDP/1170
- ✓ IBM 370 - VM/SP operating system
- ✓ BESM 6 (USSR developed computing system)
- ✓ SUN Workstations - Unix
- ✓ PC and PC based cluster - Windows, Linux + MPI

Programming languages: FORTRAN, C

PERSONAL BIOGRAPHICAL DATA

Born: March 5, 1956, Moscow, USSR. **Nationality:** Russian. **Foreign languages:** English.
Marital status: married, one child. Updated: Moscow, April 2019