September 18, 2015

Alexander Mikishev, PhD

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Curriculum Vitae (short version)

Academic Degrees

1983 M.Sc. in Physics (Five year program)
Perm State University, Perm, USSR.
1990 Ph.D. Perm State University, Perm, USSR.

Positions

Aug. 2015 - present
Visiting Assistant Professor, Dept. of Physics, Sam Houston State University, Huntsville, TX
June 2012-present
Adjunct Assistant Professor (online teaching), Embry-Riddle Aeronautical University-Worldwide, Daytona Beach, FL
Aug. 2012-Aug. 2015
Adjunct Professor, Dept. of Physics, Sam Houston State University, Huntsville, TX (since August 2012 - Aug. 2015).
Aug. 2011-2013
Adjunct Professor of Mathematics, Katy Campus, Strayer University, Houston, TX.
Oct. 2007-Sept. 2011
The Technion, Dept. of Mathematics, Haifa, Israel. Adjunct Professor (since 2007-till 2010), Research Fellow (since 2008-until 2011).
Sept. 2005 -Sept. 2008
University Center, Department of Mathematics, Ariel, Israel. Lecturer
Oct. 1996-June 2001
Different companies developing computer software. Israel: S/w engineer (Simula, 1996), Senior s/w engineer (Inverness, 1997), IT Manager (Virata, 2000).
Sept. 1994-Dec. 1994
College of Jordan Valley, Zemakh, Israel. Instructor in Physics.
Oct. 1991- June 1994
Tel-Aviv University, School of Mathematical Sciences, Tel-Aviv, Israel. Post-Doctorate in Applied Mathematics. Adviser: Prof. G. I. Sivashinsky.
Oct. 1985 - May 1991
Institute of Continuous Media Mechanics of the Ural Branch of the USSR Academy of Sciences, Perm, USSR. Doctorate (1985), Junior Scientific Worker (1988-91).
Oct. 1983 - Sept. 1985
Perm State University, Perm, USSR. Department of Theoretical Physics. Instructor, Assistant (1983).

Visiting Positions

Short-Time Visits

June 2014, July 2015	TIPs - Fluid Physics, Université Libre de Bruxelles, Belgium.
Sept. 2010	Institute of Mechanics, Chinese Academy of Science (National Microgravity Laboratory), Beijing, China.
Sept. 2010	State Key Laboratory of Multiphase Flow in Power Engineering, Xi'an Jiaotong University, Xi'an, China.

Research Fields

Nonlinear stability theory of viscous and convection flows. Pattern formation and stability. Generation of large-scale structures. Generation of chaos in distributed systems. Thermogravitational and thermocapillary convection in systems with interfaces. Microgravity phenomena. Application of wavelets in physics and fluid mechanics.

Awards

2014	Winner of 2014-2015 ERAU Worldwide Research Award, ERAU-13360 ($5,000.00).
2013	Winner of 2013-2014 ERAU Worldwide Research Award, ERAU-13353 ($4,046.00).
1989	Winner of the 3rd All-Union competition of young scientists "Modern problems of thermodynamics and hydrogasodynamics", Institute of Thermophysics SB of USSR AS, Novosibirsk.
1990	Prize of Institute of Continuous Media Mechanics.

Fellowships

1991	Shapiro Fellowship

Participating in Grants

2008-2010	Israeli Ministry of Science, Culture & Sport. Joint grant with RFFI, Russia (Co-investigator)
2009-2012	European Network "MULTIFLOW" (Co-investigator)
2013-2015	ERAU Research Awards ERAU-13353 and ERAU-13360 (Principal investigator)

Teaching Experience

- Perm State University, Department of Physics: Courses and practical training on Differential Equations, Calculus of variation, Complex variables, Theoretical Mechanics, Matrix and Tensor Analysis.
- College of Jordan Valley: Course of high-school physics; Projects for high-school students on physical simulation.
- University Center, Ariel: Courses "Mathematics for Economists", "Computing for Economists", Theory of Probability and Statistics.

- Technion, Department of Mathematics: Courses, training and grading on Partial differential equations, Ordinary differential equations, Calculus I, Calculus II, Numerical methods.
- Educere Tutoring Center, Houston, TX, USA. Individual tutoring in Mathematics, Physics and Chemistry (high school and college-level students).
- Strayer University, Katy Campus, Houston, TX
  MAT 090: Fundamentals of Mathematics MAT 104: Algebra with Applications
  SCI 110: Introduction to Physical Sciences MAT 540: Quantitative Methods
  MAT 300: Statistics
- Embry-Riddle Aeronautical University-Worldwide (online teaching):
  PHYS 102: Explorations in Physics MATH112: College Mathematics for Aviation II
  MATH111: College Mathematics for Aviation I MATH250: Calculus & Analitycal Geometry I
- Sam Houston State University, Huntsville, TX
  PHYS 1311: Introductory Astronomy PHYS 1301: Physics-Mechanics and Heat
  PHYS 1302: Physics: Electromagnetism and Optics PHYS 1305:Classical Physics and Thermodynamics
  PHYS 3391: Modern Physics

Professional Activity

- - Member of the American Physical Society, Division of Fluid Dynamics, APS Texas Section.
- **Reviewer for**:
  - Physics of Fluids
  - Fluid Dynamics Research
  - Journal of Biological Physics
  - The Journal of the Franklin Institute
  - Applied Mathematics and Computation
- - Founder and Coordinator of International Group of Amateur Astronomers (since 2000).
- - Editor of "Astronomical Almanac" (since 2000).

Additional Information

Permanent resident of the United States.

List of Publications and List of Recommenders available upon request