

Curriculum Vita

Tatiana Erukhimova

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Professional Preparation

- M.S. in Physics with Honors, 1987, Nizhny Novgorod State University
- Ph.D. Physics, 1999, Institute of Applied Physics, Russian Academy of Sciences

Academic Appointment History

- 2016 - present: Instructional Associate Professor & Outreach Coordinator, Department of Physics & Astronomy, TAMU
- 2010 – 2016: Senior Lecturer & Outreach Coordinator, Department of Physics & Astronomy, TAMU
- 2006-2010: Lecturer and Outreach Coordinator, Dept. of Physics, TAMU
- 2002-2006: Assistant Research Scientist, Dept. of Atmospheric Sciences, TAMU
- 2001-2002: Postdoctoral Research Associate, Dept. of Atmospheric Sciences, TAMU
- 1998-2000: Research Scientist, Institute of Applied Physics, Russian Academy of Sci.

Awards and Recognitions

- Presidential Professor for Teaching Excellence, 2017
- Distinguished Achievement University-Level Award in Teaching from the Association of Former Students, 2012
- Distinguished Achievement College-Level Award in Teaching from the Association of Former Students: 2009, 2015
- Sigma Xi's Outstanding Science Communicator Award, 2014
- John E. Trott, Jr. Award in Student Recruiting, 2013
- Texas A&M University System Student Led Award for Teaching Excellence (SLATE): 2011, 2009, and 2008

Grants to support pedagogical or curricular innovation:

Principal Investigator, Student Success Faculty Fellow: "Early Intervention and Engagement in Freshman Physics Classes", TAMU, 2017-2018, \$10,000

Principal Investigator (with William Bassichis): "Calculus Based Physics Courses Enhanced with Technology", TAMU, 2016 - 2017, \$75,000

Principal Investigator: American Physical Society grant for outreach innovation, 2015-2016,

\$10,000

Principal Investigator: Simons Foundation/Science Festival Alliance Just Add Science grant, 2015-2016, \$10,000

Principal Investigator: Tier One Program grant 2012-2015: \$300,000

Title: "DEEP: Discover, Explore, and Enjoy Physics & Engineering via High Impact Educational Experiences in Aggieland and Beyond".

Service-Learning Faculty Fellow for 2013: \$2,500.

Flipping your course for 2013-2014: \$2,000

Professional interests:

- Undergraduate and K-12 science education, public outreach
- Atmospheric wave dynamics
- Numerical modeling of atmospheric transport and mixing
- Minor constituents, ozone layer

Publications:

Textbook: Gerald R. North and Tatiana L. Erukhimova, "Atmospheric Thermodynamics. Elementary Physics and Chemistry". Cambridge University Press, 2009

Other publications: 29 papers in peer-reviewed journals and conference proceedings.

Classes taught:

- PHYS 208: Electricity and Optics, Spring 2007 – 2017, 100+ students per semester
- PHYS 218: Mechanics, Fall 2006 – 2017, Spring 2018, 100+ students per semester
- PHYS 285, 485, 491, 685
- ATMO 335: Atmospheric Thermodynamics, Spring 2003 - 2005
- LEEP Summer 2008 - 2012

Outreach/Service:

- Organizer of the [Physics and Engineering Festival](#) (every spring since 2007). Over 5000 visitors every year. The Festival is an Affiliate Festival to the USA Science & Engineering Festival and a member of the Science Festivals Alliance.
- Organizer of the [DEEP](#) program for TAMU students to enhance the learning and research experiences of undergraduate and graduate students through their hands-on extracurricular activities, peer learning in small teams, and participation in high-profile outreach activities.
- Organizer of numerous outreach programs at TAMU: [Physics Show](#), [Just Add Science](#), [RealPhysicsLive](#), Game Day Physics, etc. Performed dozens of physics shows per year at local schools and libraries, for summer camps, student societies, College of Science and University-wide outreach and recruitment events. Over 20,000 people attended the Physics Show since 2007 when she started it.

- Organizer and lecturer of the Mitchell Institute Physics Enhancement Program for high school physics teachers, 2012-2017.
- Member, Texas A&M University Teaching and Transformational Learning Technologies Committee, current
- Member, Transformational Teaching and Learning Conference Program Committee, current
- Member, Center for Teaching Excellence Faculty and Student Advisory Board: 2013-2015
- Member, AAPT area committee, January 2018-present
- Organizer, Texas Section of the AAPT Meeting, Fall 2014
- Organizer/presenter of the inaugural Fall 2014 Graduate Student Professional Development in Teaching seminar series
- Organizer of the Big Physics Day: satellite event of the USA Science and Engineering Festival, fall 2010.

Recent Presentations:

1. Invited speaker: APS March Meeting 2018, Los Angeles, CA: "Physics as a Street Art".
2. AAPT Winter Meeting 2018, San Diego, CA: "Just Add Science".
3. APS March Meeting 2017, New Orleans, LA: "Physics Reality Show".
4. Invited speaker, AAPT Winter Meeting 2017, Atlanta, GA: "Engaging the Public with Festivals"; "Enhancement Program for In-Service Physics Teachers at TAMU"; "New Video Resource for Calculus-based Introductory Physics at TAMU" (presented by graduate student Jonathan Perry).
5. Texas A&M 2017 Teaching with Technology Conference (with William Bassichis and Jonathan Perry): "Freshman Physics Classroom: First Results"
6. Invited speaker, TAMU Pedagogy Forum, Fall 2016, Spring 2017
7. TEDxTAMU, April 2016: ["Physics as a Street Art"](#).
8. APS March Meeting 2016, Baltimore, Md.: "Texas A&M Physics Festival: bringing together the community, faculty, and students".
9. AAPT Winter Meeting 2016, New Orleans, LA: "Texas A&M Physics & Engineering Festival: unique learning opportunity for community and students"
10. APS March Meeting 2015, San Antonio, TX: "Mitchell Institute Physics Enhancement Program (MIPEP)".
11. APS/AAPT Texas 2014 Fall Meeting, College Station, TX: "High Impact Hands-on Educational program for Physics & Engineering Students at Texas A&M"
12. APS March Meeting 2014, Denver, Colorado: "DEEP: Discover, Explore, and Enjoy Physics & Engineering via High Impact Educational Experiences at Texas A&M and Beyond"
13. Invited speaker, International Public Science Events Conference, Chicago, Ohio, February 12-13, 2014: "Creating High-Energy K-12 Outreach Teams with University Students"
14. Plenary speaker, Texas A&M Center of Teaching Excellence Fall 2013 and Fall 2012 TA Training Meetings: "Teaching undergraduates: surviving or thriving?"
15. Keynote speaker, Fall Induction of Kappa Delta Pi Education Honor Society, November 17, 2013, TAMU: "You're educators. You're born to make a difference".
16. Invited speaker, International Public Science Events Conference, Columbus, Ohio, October 10-11, 2012: "Off the Bench and Out of the Field: Scientists in Outreach"
17. Invited speaker, Teacher Summit 2012, College Station, TX.

Membership in professional societies

- American Physical Society, member
- American Geophysical Union, member
- American Association of Physics Teachers, member
- American Society for Engineering Education, member
- The Honor Society of Phi Kappa Phi, member