

## EKATERINA (KATYA) DENISOVA

Baltimore City Public Schools, 200 E. North Avenue Baltimore, MD 21202  
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### Education and Training

Herzen State Pedagogical Univ, Russia Physics B.S. 1996  
Herzen State Pedagogical Univ, Russia Physics Education M.S. 1997  
University of Northern Iowa Science Education M.A. 2000  
Herzen State Pedagogical Univ, Russia Physics Education PhD 2002

### Appointments

#### **Baltimore City Public Schools, Baltimore, MD** **7/02-present**

STEM Achievement in Baltimore Elementary Schools (SABES), Project Director	09/12-present
Science Academic Content Liaison, Schools Support Networks	07/11-09/12
HS Teacher Fellow, Office of Teaching and Learning	07/09-07/11
Secondary Science Specialist, Office of Academic Achievement	12/08-07/09
Department Head/Instructional Support/Lead Teacher (Science), Homeland Security Academy	8/05-12/08
Physics and Chemistry Teacher, Walbrook High School	7/02-6/05

#### **US Embassy, St. Petersburg, Russia**

Science Teacher, The Anglo- American School	<b>6/00-6/02</b>
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### Additional Experiences

<u>American Association of Physics Teachers</u>	May, 2012
Next Generation Science Standards reviewer	
<u>National Assessment of Educational Programs</u>	May, 2012
Science State/TUDA Science Item Reviewer	

<u>Notre Dame of Maryland University</u>	Fall, 2011-present
Adjunct Professor, Physics for Elementary Educators	
<u>AAAS Project 2061 &amp; The National Science Digital Library</u>	2000
Standards Reviewer	
<u>Loyola University of Maryland</u>	2008/2009
Adjunct Professor, Physics for Elementary Educators	
<u>George Washington University, Washington DC</u>	2008-2011
Instructor of PTRA/AAPT Institute for Physics teachers (3-year Program)	
<u>Johns Hopkins University, Baltimore, MD</u>	2008
Instructor of Science and Engineering Course, Center for Talented Youth	
<u>Baltimore City Public Schools</u>	2007-2009
Mentor for National Board Teacher Certification Candidates	
Professional Development Provider, Physics	
<u>Frostburg State University, Maryland</u>	2007-2012
TOPPS Professional Development Provider	
<u>National Science Teacher Association (NSTA)</u>	2007-2009
Science Education Private Consultant	
<u>Wisconsin Center for Education Research</u>	2006-present
Standards Alignment Reviewer (Webb Alignment)	
<u>American Association of Physics Teachers</u>	2006-present
Physics Teaching Resource Agent (PTRA)	
<u>Baltimore Teachers' Union</u>	2006-2008
Facilitator of PRAXIS Testing Preparation Sessions for Science Teachers	
<u>College of Notre Dame, Maryland</u>	2005-2008
Facilitator of Evening Seminars and Summer Teacher Induction Institute	

### Most Relevant Publications

*An Integrated Elementary STEM Initiative in a Large Urban School District: Implications for Practice* by Parker, Carolyn; Abel, Yolanda; Denisova, Ekaterina; School Science and Mathematics, July 2013

*It takes a community to raise an engineer -- STEM Achievement in Baltimore Elementary Schools (SABES)*. Michael L. Falk, Yolanda Abel, Ekaterina Denisova, Christine Newman, Carolyn Parker, Stephen Plank; Materials Research Society (MRS), San Francisco, April 2013

Denisova, E. "Mending the Broken Link: The Critical Need for Science Teachers in Inner-City Elementary Classroom," NSTA Reports, 2012.

### Synergistic Activities

- Co-Designer of the BCPSS District Physics Curriculum, Department of Curriculum and Instruction, Baltimore City Schools, 2003-2004.
- Co- designer of City Schools' integrated units in Biology, Physics, and Algebra for High School teachers. 2009-2010
- Lead development of Baltimore City Schools' Science curriculum, grades 1-12. 2009-2010
- Lead MSDE funded program to introduce project-based STEM modules in 22 BCPSS elementary schools in "School Improvement" during summer school and subsequent school year;
- Lead development of elementary science and engineering curriculum units (grades k-5) 2011-2012
- Designer of the Professional Development Academy for middle school teachers on integration of fictional and non- frictional literature in Middle school science content . 2011-12

### Collaborators:

- Elizabeth Allan, University of Central Oklahoma: Edmond, OK
- Susan Koba , NSELA President: Omaha, NE
- William R. Veal , College of Charleston: Charleston, SC
- Jerry Valadez, M.A., Science Coordinator, Fresno USI, Region F Director, NSELA
- Willard, Ted, AAAS, Project 2061, Science Digital Library (NSDL)
- ZipporahMiller, NSTA, Arlington, VA;
- Betty Zan , University of Northern Iowa, IA
- William Reitz ,PTRA , AAPT, American Center of Physics, College Park
- Francis Tam, Eric Moore, Frostburg State University, Frostburg, MD
- Ron Hermann, Cody Sandifer, Reizelie Baretto, Towson University, Towson, MD
- Kevin Peters, Morgan State University, Baltimore, MD
- AsamoahNkwanta, Morgan State University, Baltimore, MD
- Phillip Allen, Francis Precht, Frostburg State University, Frostburg, MD
- Pete Yankone, Van Reiner, Maryland Science Center
- Vanessa Westbrook, University of Austin, TX

### Graduate and Post Doctoral Advisor

Dr. Roy Unruh, Physics Department, University of Northern Iowa

Dr. Alexandre Kondratiev, Physics Department, Herzen State University of Russia

## CONTRIBUTIONS TO BALTIMORE CITY PUBLIC SCHOOLS

- District -wide achievement: Maryland State Assessment in 8<sup>th</sup> grade science posted gain of 13.8 percentage points between 2009 and 2012
- Awarded \$7.4 mln grant (collaboration with Johns Hopkins University) for 2012-2017 to improve STEM instruction in grades 3-5 by involving Baltimore community organizations
- Awarded \$70,000 (2011) and \$60,000 (2012) grants to design and offer Middle School Science Academies
- Awarded \$2.4 mln grant for 2010-2012 to design Elementary STEM curriculum and Teacher STEM Professional Development for 330 teachers and 17000 students
- Awarded \$80,000 (2011) and \$60,000 (2012) (collaboration with Towson University) to improve middle school Physics instruction
- Awarded \$20,000 (2010) grant to integrate Vernier technology into middle school science instruction
- In collaboration with NSTA and JHU developed STEM curriculum units and assessments for grades K-5 that integrate science, engineering, mathematics, and literacy for 39,000 students
- In collaboration with city teachers developed comprehensive Science curriculum for grades 1-8, HS Biology, HS Chemistry, HS Physics, HS Environmental Science
- In collaboration with city teachers developed Science Benchmark Assessments for grades 5, 8, and HS Biology to drive classroom instruction
- Created Science and STEM Works Professional Learning Communities for teachers in grades 1 to 8, HS Biology, HS Chemistry, HS Physics, HS Environmental Science that meet monthly to discuss science content and effective classroom teaching practices
- Organized, managed, and raised funds for the City Schools' Elementary STEM showcase at the Maryland Science Center (2012)
- Organized, managed, and raised funds for the annual City Schools' Science Teachers' Celebrations at the Maryland Science Center (2009-2011)