# Curriculum Vitae

Modeling Method for teaching high school physics.

# **Donald Pata**

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High School Physics Teacher	September 1999 – Present
Grosse Pointe North High School Teaching 3 levels of physics – Calculus, Trigonometry and Algebra	Grosse Pointe Woods, MI
Lead Workshop Facilitator	Summers 2010 -2016
State of Michigan Math and Science Centers MSP Grant	Royal Oak and Muskegon M
Trained teachers in the use of the Modeling Method for teaching high school physics	
Professional Development Leader	August 2008 – 2016
Routinely conducted professional development in physics and physical science all over	the state and the metro Detroit area
Presenter	2009 – 2016
Led workshops at national, state and local conferences for Arbor Scientific (a science suproducts and using them with pedagogically appropriate methods	upply company) highlighting their
Trainer for Teachers	Summers 2005 – 20012
Science of Cell Phones and Wireless Communications	Metropolitan Detroit, MI
Taught 2 day workshops to local science teachers in using the "Cell Phone" curriculum	
Science and Mathematics Teacher	1996 – 1997
United States Peace Corps	Ghana, Africa
Taught Biology, Chemistry, Physics and Mathematics in a rural village in West Africa	
Leadership Experience	
Chairperson Science Department (11 teachers)	2011-Present
Plan and implement PD for the department as well as provide pedagogical support	
Co-Chairperson District K-12 Science Review Committee	2015-Present
Organize and carry out NGSS adoption throughout the district	
Lead Workshop Facilitator – Modeling Workshop Group	2010-Present
Lead 15 day (105 hour) workshops for Michigan science teachers	
Michigan Section AAPT Treasurer and Executive Board Member	2010-Present
Help plan and execute 2 meetings per year as well as keep the funds for the organization	on
Co-Coordinator for Facilitator Development – Modeling Workshop Gro	<b>up</b> 2010-Present
Help plan and execute all Michigan Modeling facilitator training	
Education	
Master of Arts in Teaching	Wayne State University, Detroit, MI
	May 2003
Post Graduate Teaching Certificate (Michigan DC and DE)	Wayne State University, Detroit, MI
Production of Calcium to Planta actuals	May 1999
Bachelor of Science in Biochemistry	Wayne State University, Detroit, MI
Advance Challed Land and Towns A.7	May 1996
Arizona State University – Tempe, AZ	Attended: Summers 2002 – 2005

### Education

## University of Michigan - Dearborn, MI

Attended: Summer 2000

I spent 4 weeks learning the Modeling Method for teaching high school physics. The Modeling Method is an NSF funded teaching program that teaches teachers to use an effective inquiry-based method to teach high school physics. The Modeling Method has been shown to be the most effective teaching methodology currently in place in today's high schools.

## AP Physics Institute - University of Georgia Athens, GA

Attended: Summer 2002

I spent one week at an AP Physics institute preparing to teach the C level in the fall of that year.

#### Project PHYSLab - Portland, OR

Attended: Summer 2001

I spent 4 weeks in Portland learning how to integrate current new technology with strong pedagogy. Project PHYSLab was a long running NSF funded program.

#### Honors & Awards

# AAPT Physics Master Leadership Taskforce One of 17 teachers selected to report on tea

2016-Present

One of 17 teachers selected to report on teacher leadership across the country.

# **National Math and Science Partnership Grant**

2014-Present

Lead facilitator and grant editor on \$2.8 million competitive award from the state of Michigan PAEMST - Presidential Award for Excellence in Mathematics and Science Teaching

# Awarded in 2012

2011

Metro Detroit Science Teachers Association:

2005

Michigan Science Teachers Association:

2001

Teacher of Promise

High School Teacher of the Year

# Professional Responsibilities

FIRST Robotics Sponsor Team 1189 Science Department Chairperson PAEMST Reviewer State of Michigan 2010-2015 2011-Present

2011-Present 2013-2015

## **Publications**

Davids, M., Forrest, R., & Pata, D. (2010). Teaching the fundamentals of cell phones and wireless communications. *The Physics Teacher*, 48 (4), 217-221

Davids, M., Forrest, R., & Pata, D. (2003). Science of Cell Phones and Wireless Communication.

This is a three week curricular unit that teaches students the science of wireless communication. It was researched and written in collaboration with a grant from the NEA with support from the Convergence Educational Foundation which is now called *Square One Educational Network*.

Pata, D. (2002). Grade 11 and 12 Physics Students' Post-Instructional Conceptions of Force and Motion.

This is my unpublished maters thesis.

Pata, D. (2001). Mini-Labs for Emphasis of Relationships Between Variables. MSTA Journal, 46 (2), 36-36

## Presentations

AAPT National Conference 2009 Ann Arbor, MI Discrepant Events for the Physics Classroom

AAPT National Conference 2006 Syracuse, NY The Science of Cell Phones and Wireless Communication

AAPT National Conference 2005 Salt Lake City, UT The Science of Cell Phones and Wireless Communication

NSTA National Conference 2006 Anaheim, CA The Science of Cell Phones and Wireless Communication

NSTA Regional Conference 2007 Detroit, MI Make and Take for New Teachers

MSTA State Conference 2001 - 2016 MI

MDSTA Local Conference 2001 – 2016 Metropolitan Detroit Area, MI

**DMAPT Local Meetings** 2001 – 2016 Metropolitan Detroit Area, MI

# **Professional Organizations**

**AAPT** (American Association of Physics Teachers) **NSTA** (National Science Teachers Association) MSTA (Michigan Science Teachers Association) **AMTA** (American Modeling Teachers Association) MI-AAPT (Michigan Section of the AAPT: Current Treasurer) MDSTA (Metro Detroit Science Teachers Association) **DMAPT** (Detroit Metropolitan Area Physics Teachers: Past President) **MEA** (Michigan Educational Association)