Adam LaMee

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Education

M.S. Industrial Engineering, University of Central Florida, 2020 (3.93 GPA)
- \+ 27 cr. Physics, Florida State University, UCF, Aurora University (3.06 GPA)
- \+ 9 cr. Education, Florida State University (3.85 GPA)

B.S. Physics w/Education focus, Florida State University (2003)

B.S. Anthropology, Florida State University (2003)

Employment

PhysTEC Teacher-in-Residence (since 2015). K12 Teacher recruitment and advising, Learning Assistant Program Director, physics pedagogy instructor, faculty support for pedagogy and course reform, K12 schools liaison for professional development and strategic planning. Department of Physics, University of Central Florida, Orlando, FL.

Quarknet Teaching and Learning Fellow (since 2014). Develop & lead teacher activities and resources incorporating inquiry, programming, data analysis, and high-energy physics for K-12 science students.

High school teacher (2013 - 2015). Physical Science, Physics 1 Honors, AP Physics 1, and IB Physics SL. James S. Rickards High School, Tallahassee, FL.

Assessment consultant (since 2013). Physics content expert and video game-based stealth assessment design for *Modeling how affect, engagement, and conscientiousness interact and influence learning in Newton's Playground* funded by the U.S. Army and the Bill & Melinda Gates Foundation. Florida State University, Tallahassee, FL.

Research Assistant (2011 - 2013) Formative and summative assessment development, implementation, and analysis; teacher trainer on IES-funded project *Improving Science Assessments*. Center for Advancement of Learning and Assessment, Florida State University, Tallahassee, FL.

High school teacher (2003 - 2011). Physics 1, Physics 1 Honors, AP Physics B, Chemistry 1; Department Chair, intern and new teacher mentor, professional development leader. Lincoln High School, Tallahassee, FL.

Publications

Todd Hutner, Victor Sampson, **Adam LaMee**, et. al. (2020). *Argument-Driven Inquiry in Physics: Lab Investigations for Grades 9-12, Volume 2*. Arlington, VA: NSTA Press.

Victor Sampson, **Adam LaMee**, et. al. (2017). *Argument-Driven Inquiry in Physics: Lab Investigations for Grades 9-12, Volume 1*. Arlington, VA: NSTA Press.

Danielle Sherdan, Alan Anderson, Aaron Rouby, **Adam LaMee**, Penny J. Gilmer, and Albert Oosterhof (2014). Including Often-Missed Knowledge and Skills in Science Assessments. *Science Scope*, 38(1), 56-62.

Selected Invited Talks

Modern Research Data to Enrich the K12 Classroom (2020, January). American Association of Physics Teachers Winter Meeting, Orlando, FL.

Teaching K12 Science Content with Coding and Data Visualization (2018, July). American Association of Physics Teachers Summer Meeting, Washington, D.C.

Online Learning in High School (2018, March). Florida Matters radio show, WUSF, University of South Florida.

Keynote speaker (2017, January). Academic Support Center training, Valencia State College, Orlando, FL.

Transience with Continuity: the TIR Paradox (2016, July). American Association of Physics Teachers national conference, Sacramento, CA.

Panel on Florida High School Science Teacher Preparation (2015, October). Florida State University Physics department, Tallahassee, FL.

Selected Contributed Talks

Yuehai Yang, **Adam LaMee**, Jacquelyn J Chini, and Talat S Rahman (2016, March). *An Ongoing Evaluation of the Learning Assistant Program at UCF*. Poster presentation at the national PhysTEC meeting, Baltimore, MD.

Adam LaMee (2014, April). *Science as Argument: Writing Effective Explanations of Data*. Presentation at the National Science Teachers Association national conference, Boston, MA.

Adam LaMee and Lee Walton (2014, April). *Argumentation, Assessment, and the Theory of Evolution*. Presentation at the National Science Teachers Association national conference, Boston, MA.

Fara Rohani, **Adam LaMee**, and Aaron Rouby (2012, December). *Formative Assessment of Complex Science Competencies*. Presentation at the annual conference of the Florida Center for Research in Science, Technology, Engineering, and Math, St. Petersburg, FL.

Teaching Experience

Post-secondary: undergraduate Physics pedagogy seminar (10x), senior undergraduate Physics pedagogy and teaching methods (3x); course redesign to incorporate learning goals, diversity & inclusion, computation, inquiry, argumentation, career preparation, and remote learning.

High School: Physics 1 and Physics 1 Honors (36x), AP Physics (12x), IB Physics SL (1x), Physical Science (3x), Research Elective (1x), Chemistry 1 (1x)

Awards and Service

Chair, Website & Social Media Committee (2016-2020). Department of Physics, University of Florida, Orlando, FL.

President (2016-2020). Florida Chapter of the American Association of Physics Teachers.

Conference coordinator (2015). Registration, webmaster, facilities, and scheduling for the Florida chapter of the American Association of Physics Teachers annual conference. University of Central Florida, Orlando, FL.

Mentor teacher (2003 - 2015). Supervised interns and beginning teachers in Leon County Schools. Tallahassee, FL.

Chair, Science Department (2009-2011). Purchasing, professional development coordinator, Science Fair coordinator, staffing & evaluation, and curriculum planner for the Lincoln High School Science department. Tallahassee, FL.

Science curriculum expert (since 2007). Committee member for Florida's 2007 NGSSS statewide course descriptions, FL Standards Math and ELA integration, and content expert for the Florida Teacher Certification Exam item review, Florida Department of Education. Tallahassee, FL.

US-CMS Summer Teacher Fellow (2004 - 2010). Five-time awardee on the Compact Muon Solenoid hadronic calorimeter assembly, calibration, test beam shifts, and SiPM upgrade testing. CERN, Geneva, SW.

Student Journalist Supervisor (2008, April). Traveled with three high school Physics students acting as journalists to cover the CERN Open Days public event promoting the upcoming LHC commissioning. CERN, Geneva, SW.

Teacher Education

UCF faculty teaching mentor (since 2015). Coordinator for Physics department faculty pedagogy seminars, peer observation facilitator, individual faculty coaching on reform-based teaching and increasing student learning. University of Central Florida, Orlando, FL.

Quarknet Teaching & Learning Fellow (since 2014). Workshop leader for high school teacher summer workshop on high-energy physics and inquiry-based classroom activities. Fermilab, Batavia, IL.

Project CODER (2016). Designer and leader for 3-day teaching workshops at the University of Central Florida and University of Florida on introductory computer programming for grades 6-12 and analyzing CERN OpenData. NSF-funded by way of a grant from US-CMS. Orlando and Gainesville, FL.

UCF PhysTEC Summer Workshops (2016). Designer and leader of workshops for practicing K-12 science teachers and university students interested in teaching. Orlando and Daytona Beach, FL.

Quarknet Summer Workshops (since 2014). Lead teacher for FSU and FIT Quarknet centers' 1-week workshops on 6-12 physical science, high-energy physics, and reform-based teaching. Tallahassee and Melbourne, FL.

BIOSCOPES Physical Science Teacher Institute (2013, June). Lead facilitator for 2-week summer workshop on 6-12 Physical Science content, Learning Systems Institute, Florida State University. Tallahassee, FL.

Lesson Study (2010 - 2011). Facilitator for the Lincoln High School Science department's year-long PLC. Tallahassee, FL.

Writing in the Science Classroom (2010, October). Co-leader of written argumentation strategies to support science learning for Language Arts teachers in Leon County Schools. Tallahassee, FL.

Science Writing as Argument (2009, January). Co-leader of written argumentation strategies to support science learning at the National Writing Project regional conference. Tallahassee, FL.

Motion, Forces, and Energy (2002 - 2008). Co-leader of K-5 teachers 2-week summer workshop on physical science content and inquiry-based activities at the Office of Science Teaching Activities, Florida State University. Tallahassee, FL.

Skills

- Teaching
    - Physics with active learning, supporting diversity & equity, K12 to undergraduate
    - Inquiry, computation, coding, 5E, Arduino, video analysis, mixed-mode & remote
    - Integrating research data into course content, international outreach leadership
    - Faculty training in pedagogy, argumentation, assessment, & course design
    - State education policy & advocacy, K12 to post-secondary articulation
- Project Management
    - Department Chair, AAPT section President, Learning Assistant program Director
    - Quality & systems engineering, corporate finance, innovation & creative teams
    - Program evaluation in K12 & undergraduate, Baldrige Framework, RTOP
    - Training development & facilitation, conference planning
- Communication & Collaboration
    - Trained educator and advocate for diversity & inclusion
    - Writing & presenting for diverse stakeholders, large international team collaboration
    - HTML, CSS, GitHub pages, Jekyll, WordPress, Mailchimp, AV production, MS Office, G Suite
- Data Science
    - Analytics & visualization with Python, pandas, NumPy, SciPy, statsmodels, Matplotlib, Bokeh
    - Jupyter, JupyterHub, Binder, Colab, Azure, Tableau, LabView, Gaussian, video analysis
    - Mac/Windows/*nix networking, GCC & AWS, Git & GitHub, VirtualBox
- Laboratory
    - Digital & analog data acquisition, PMT, SiPM, photonics R&D, CERN US-CMS HCAL
    - Safety and access-control for particle beam, radiation, & cryogenics
    - Carpentry, electrical, plumbing, automotive, small engine, lift, dump truck, mill

References

Talat Rahman UCF Physics Orlando, FL talat@ucf.edu	Talat was the PI on the PhysTEC grant which initially funded my position at UCF as Teacher-in-Residence in 2015. She's played the role of my supervisor, Department Chair, mentor, and collaborator on everything from teacher recruitment to radically reforming UCF's undergraduate classroom experiences.
Ken Cecire Quarknet Staff Teacher Notre Dame, IN kenneth.w.cecire.1@nd.edu	Ken has been part of the staff of NSF's Quarknet program for particle physics outreach since its inception in 1999. I've been lucky to work with Ken since 2003 when I was a participant, then lead teacher, then Teaching and Learning Fellow on teacher professional development around the country.
Paul Cottle FSU Physics Tallahassee, FL pcottle@fsu.edu	Paul is a nuclear physicist, former Chair of the APS Committee on Education, and a vocal advocate for Physics education. I've known Paul since I was an undergraduate. He's been kind enough to chronicle my Physics recruitment efforts in fiery letters to the editor and on his blog, BridgeToTomorrow.wordpress.com.
Vasken Hagopian CERN Researcher Geneva, Switzerland vasken.hagopian@cern.ch	Vasken is an emeritus professor in FSU's Physics Department, a researcher at CERN on the CMS detector, an ardent supporter of K-12 science education, and supervisor of my research at CERN.