

# Stephanie V. Chasteen

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## BACKGROUND SUMMARY

Ph.D. Physicist with 9 years experience in science communication and education. Possess a talent for learning, getting new projects off the ground, organizing & disseminating information, and a creative passion for broad communication of science.

- formal & informal science education
- education research
- science journalism
- program evaluation
- teacher professional development
- social & digital media

## PROVEN SKILLS

### Project management

- Broad experience facilitating and collaborating with diverse groups of people.
- Vision and clarity in creating and managing innovative projects.
- Initiate and follow through on long-term projects.

### Technical and creative skills

- Data collection and analysis, including program evaluation, educational assessment, assessment and pre/post content survey design, and interviews.
- Excellent written and verbal skills, for both public and professional audiences.
- Digital audio and video writing, direction, and production
- Workshop creation and facilitation

## FORMAL EDUCATION

**University of California – Santa Cruz.** Ph.D., Condensed Matter Physics, 2005.  
**Bard College.** B.A., Social Psychology, 1995.

## EXPERIENCE

**SCIENCE EDUCATION CONSULTANT & SCIENCE WRITER** **2002–present**  
Produced curricular materials, provided workshops for K–12 and college instructors, and conducted external evaluation (several clients listed below and on web). Published numerous articles on science in print, web, radio and podcast. Projects have been targeted to diverse audiences and have included a broad range of science topics.

**LEARN MORE ABOUT CLIMATE, CU–BOULDER** **2011–present**  
**K–12 Outreach Coordinator** • Linda Molner–Kelley  
Created K–12 outreach programs and initiatives for the Office of University Outreach, focused on university resources related to localized impacts of climate change.

**PHET INTERACTIVE SIMULATIONS** **2011–present**  
**External Evaluator and video producer** • Dr. Katherine Perkins  
Created pedagogical videos and provided external evaluation of interactive simulation project aimed at college and middle school instruction.

**CENTER FOR ASTRONOMY EDUCATION, UNIVERSITY OF ARIZONA** **2011–present**

**External Evaluator** • Dr. Edward Prather

Investigated the effectiveness and long-term impact of faculty professional development workshops in astronomy, through observations, surveys and interviews.

**DEPARTMENT OF ENGINEERING: COSI-IGERT**

**2009–present**

**External Evaluator** • Dr. Rafael Piestun

Provided formative and summative assessment of interdisciplinary graduate traineeship.

**HARVARD–SMITHSONIAN CENTER FOR ASTROPHYSICS**

**Oct. 2009–April 2010**

**Professional Development Writer** • Kelly Cramer and Alex Griswold

Developed teacher’s guide to accompany online course, “Physics for the 21<sup>st</sup> Century.”

**NATIONAL SCIENCE DIGITAL LIBRARY**

**2009–2010**

**Podcast producer / Researcher** • Susan Van Gundy

Produced a monthly podcast on polar research for elementary teachers as part of the Beyond Polar Bears and Penguins project for the International Polar Year. Researched and reported on elementary and middle school librarians’ use of digital resources.

**SCIENCE EDUCATION INITIATIVE, Univ. of Colorado, Boulder**

**Sept. 2007–present**

**Science Teaching Fellow** • Dr. Carl Wieman, Dr. Kathy Perkins, and Dr. Steven Pollock

Collaborated with faculty to research and reform upper-division physics courses to increase student comprehension through active engagement. Initiated outreach program to inform educators about how science education research can inform their teaching.

**EXPLORATORIUM TEACHER INSTITUTE, San Francisco, CA**

**Mar. 2006–Aug. 2007**

**Postdoctoral Fellow (NSF-IPSE)** • Dr. Paul Doherty

- Created and taught hands-on inquiry-based professional development workshops for secondary school educators, including online workshops.
- Co-wrote and produced or hosted several audio podcasts and live webcasts
- Acted as a scientific advisor for the museum.

**NATIONAL PUBLIC RADIO – SCIENCE DESK, Washington DC**

**Summer 2003**

**AAAS Mass Media Fellow** • Alison Richards

Reported, wrote, voiced, and produced several nationally-aired radio shorts on breaking science news. Learned to communicate science briefly and clearly.

**OTHER PROJECTS AND CLIENTS:**

- **PhET at University of Colorado at Boulder** (Kathy Perkins, 2010). External evaluator for DRK-12 program. Directed and produced promotional videos.
- **Science Education Resource Center** (Cathy Manduca, 2010). Wrote multi-page online module on using undergraduate learning assistants in college courses.
- **American Institute of Physics** (Kendra Rand, 2009): Revised manual for physicists in Adopt a Physicist program.
- **National Science Digital Library** (Robert Payo, 2008–2010). Co-developed and produced podcast on polar science for K–5 educators.
- **Emergent Matter Project** (Dr. David Pines; 2005–2006): Central coordinator for international collaboration of scientists and educators.
- **Twin Cities Public Television** (Richard Hudson, 2003): Research assistant.

**PROFESSIONAL AFFILIATIONS**

National Association of Science Writers (2001–present) • American Association of Physics Teachers (2006–present) • National Science Teachers Association (2007–present) • American Assoc. for the Advancement of Science (2002–present) • American Physical Society (2001–present) • Colorado Science Education Network (2009–present).

## LEADERSHIP & VOLUNTEER EXPERIENCE

**SCIENCEGEEKGIRL BLOGS** **2008–present**  
Blog regularly as part of a community dedicated to science and physics education, both at <http://blog.sciencegeekgirl.com> and <http://expertvoices.nsd.org/sciencegeekgirl>

**BOULDER AREA STEM EDUCATION COALITION (BASEC)** **2010–present**  
Executive committee member, communications director, and prior executive director.

**FRIENDS OF GUINEA** **1999–present**  
**Founding officer, webmaster, secretary, membership director**  
Spearheaded new non-profit organization (<http://www.friendsofguinea.org>)

**U.S. PEACE CORPS, Guinea–Conakry, West Africa** **1997–1999**  
**Community Development & Public Health Volunteer**  
Worked with diverse groups of people to develop public health projects.

## PRESENTATIONS & POSTERS

Annual meetings designated as follows: AAPT = American Physics Teacher Association; APS = American Physical Society; CSC = Colorado Science Conference; NSTA = National Science Teachers Association; PERC = Physics Education Research Conference.

## PROFESSIONAL WORKSHOPS

- **The Gentle Art of Questioning: Clickers and other tech tools for student engagement,** *CIRTL Forum*, Madison WI (October 10, 2011)
- **Teaching Faculty about Effective Clicker Use,** *i>clicker webinar*, (October 4, 2011 and January 18, 2011),
- **Making the Global Local: Evidence for Climate Change in Colorado.** *Science Hubs*, Colorado Springs, CO (March 6, 2012); *CSC*, Denver CO (November 11, 2011); *Teaching Outside the Box*, Boulder, CO (April 30, 2011).
- **What Do You Want Them To Learn Tomorrow? Learning Goals and Formative Assessment.** *Oregon AAPT*, Portland, OR (October 15, 2011); *North Carolina A&T University*, Greensboro, NC (April 4, 2011); *Faculty Teaching Excellence Program (FTEP)*, University of Colorado at Boulder (October, 2011; March 2011; October, 2010; April, 2010).
- **Writing Great Clicker Questions.** *Oregon State University*, Eugene, OR (November 11, 2011); *Sheridan County School District*, Sheridan WA (August 25–26, 2011), *i>clicker webinar* (November 9<sup>th</sup> 2010), *CSC*, Denver CO (November, 2009).
- **Make Clickers Work for You,** *Oregon State University*, Eugene, OR (November 11, 2011); *Oregon AAPT*, Portland, OR (October 15, 2011), *Sheridan County School District*, Sheridan WA (August 25–26, 2011), *Technology in Education Conference*, Copper Mountain, CO (June 22, 2011), *National Science Teachers Association*, San Francisco (March, 2011), *i>clicker webinar*, (February 16, 2011), *Resource Area for Teachers (RAFT)*, Denver CO (October, 2010), *International Society for Technology in Education*, Denver CO (June, 2010); *Faculty Teaching Excellence Program*, University of Colorado, Boulder (April, 2010); *i>clicker webinar*, (September 5, 2010), *University of Colorado at Denver: Anschutz Campus* (February, 2010), *Graland Country Day School*, Thornton CO (February, 2010), *NSTA*, Phoenix, AZ (December, 2009); *Colorado Science Conference*, Denver CO (November, 2009); *Bollman Technical High School*, Thornton CO (October, 2009); *New England AAPT*, Durham NH (October, 2009), *Technology in Education Conference*, Copper Mountain, CO (July, 2009); *Adams 12 School District*, Thornton, CO (May, 2009).
- **The Nuts and Bolts of Clickers.** *North Carolina A&T University*, Greensboro, NC (April 4, 2011).
- **Using Clickers in Museum Environments.** *Pacific Science Center*, Seattle, WA (January 10, 2011).
- **Inquiry Structure for Learning Science Content: Dissolving** (with Barry Kluger–Bell). *Colorado Science Conference*, Denver CO (November, 2010)
- **Inquiry Science** (with Barry Kluger–Bell). *Resource Area for Teachers (RAFT)*, Denver CO (August, 2010).
- **Using PhET in the Classroom,** *NSTA*, Minneapolis, MN (October, 2009); *NSTA*, Phoenix, AZ (December, 2009); *Technology in Education Conference*, Copper Mountain, CO (July, 2009).
- **Solid Ways to Teach Fluids,** *CSC*, Denver, CO (November, 2007).
- **Demonstrations and Ideas from the Exploratorium,** *CO–AAPT*, Wheat Ridge, CO (October, 2008)
- **Using and Making Audio Podcasts in the Mathematics Classroom,** *California Mathematics Council*, Asilomar CA (June, 2007)

- **Attack of the Podpeople: Creating and using podcasts in the classroom,** *Exploratorium*, San Francisco (May, 2007).
- **Sparking Excitement for Electricity: Electrostatic activities that work.** *CMSESMC Math/Science Conference*, Redwood City (June, 2007).

## TALKS

- **The Quasi-Linear Dynamics of a Career in Science Education.** *University of Oregon Women in Science Group*, Portland, OR (November 11, 2011).
- **Clickers in context: How is peer instruction used in the classroom (and what works?)** *Department Colloquium, Oregon State University Physics Dept.* (October 17, 2011).
- **Adopt, Adapt, or Abandon? Instructors' Decisions to use Research-Based Materials,** *AAPT*, Omaha, NE (August, 2011).
- **Speaking of Physics: The Art of Science Communication.** Invited panelist, *AAPT*, Omaha NE (August, 2011); , *Department Colloquium, Physics Dept., San Jose State University*, San Jose CA (October, 2006).
- **Getting the Word Out: Effective Communication of the Results of Our Work in Physics Education Research.** Plenary Speaker, *Foundations and Frontiers of Physics Education Research, Puget Sound*, Seattle, WA (March 2011), and invited speaker, *Global Physics Department*, online (November 2, 2011).
- **Learning Goals and Bloom's Taxonomy.** *Guest lecturer, "Teaching and Learning of Biology" course, CU-Boulder biology department* (Feb. 11, 2011).
- **Alternative Careers in Media.** *Beyond Boulder student career panel.* Invited panel speaker (Feb. 25, 2011).
- **Communicating DBER outside of DBER.** *DBER Group*, Boulder, CO (December, 2010).
- **Translating Discipline-Based Education Research to K12 Teachers,** S. Chasteen and T. Loeblein. *iSTEM Teacher Professional Development Mini-Symposium.* Invited Presentation, Boulder CO (Sept 2, 2010).
- **Facing Facebook: Using Social Media In and Out of the Classroom.** Invited panelist and speaker, *AAPT*, Portland OR (July, 2010).
- **An Inside Look: Practical strategies for personal response systems ("clickers").** *AAPT*, Portland OR, (July, 2010).
- **What (most) Physicists (don't) Do: Alternative Careers in Science.** Invited speaker for course *What Physicists Do*, Carleton College, MN (April 2010).
- **What Every Teacher Should Know About Cognitive Research.** *Computer Science GK12 Fellows meeting*, University of Colorado at Boulder (February, 2010); *CSC*, Denver, CO (November, 2009 and November, 2011).
- **Flirt Harder, I'm a Physicist.** Invited talk on alternative careers and a career as a woman scientist, *Women in JILA group*, CU Boulder (October, 2009).
- **Thinking Like a Physicist: Transforming Upper-Division Electricity and Magnetism,** *Carleton College Colloquium*, MN (April 2010); *New England AAPT*, Durham NH (October, 2009).
- **A Research-Based Transformation of Junior Electricity and Magnetism.** *APS*, Denver CO (March, 2009).
- **Clicker Use in Upper-Division Courses,** Invited talk, *AAPT*, Chicago, IL (February, 2009); *Colorado Learning and Teaching with Technology Conference*, Boulder CO (August, 2009).
- **Transforming Upper-Division Electricity & Magnetism,** *APS*, Denver, CO (March, 2007).
- **Transforming Upper-Division E&M,** *AAPT*, Edmonton, AB (July, 2008).
- **Get the Word Out: My Life as a Scientist Communicator,** Invited talk, *Ecological Society of America*, San Jose, CA (March, 2007)

- **Hear Me Out: Communicating Nanotechnology through Podcasts.** *Communicating Science to Broader Audiences*, Lincoln, NE (December, 2007)
- **SmallTalk: Conversations about Nanotechnology through Podcasts**, AAPT, Seattle WA (July, 2007).

## POSTERS

- **Learning About Teaching Physics: A new audio podcast on physics education research for teachers.** S. V. Chasteen and M. Fuchs, AAPT, Omaha, NE (August, 2011) and Ontario, CA (February, 2012).
- **But Does it Last? Sustaining Upper-Division Transformations in Electricity and Magnetism.** S. V. Chasteen, R. E. Pepper, S. J. Pollock, K. Perkins. Center for Integration of Research, Teaching and Learning, Madison, WI (October, 2011); *Foundations and Frontiers of Physics Education Research, Puget Sound*, Seattle, WA (March 2011).
- **Translating Discipline-Based Education Research to K12 Teachers**, S. Chasteen, K. Perkins, C. Wieman. *iSTEM Teacher Professional Development Mini-Symposium*, Boulder CO (Sept 2, 2010).
- **New Ways of Teaching Junior E&M – Descriptions and Results.** S. V. Chasteen, S. J. Pollock, M. Dubson, E. Kinney, P. Beale and K. K. Perkins. AAPT, Portland OR (July 2010).
- **An Inside Look: Practical strategies for personal response systems (“clickers”).** S.V. Chasteen. AAPT, Portland OR (July 2010); AAPT, Omaha, NE (August, 2011); AAPT, Ontario, CA (February, 2012).
- **But Does it Last? Sustaining Upper-Division Transformations in Electricity and Magnetism.** S. V. Chasteen, R. E. Pepper, S. J. Pollock, K. Perkins. PERC, Portland OR (July, 2010).
- **Upper Division Transformations in Physics.** S.V. Chasteen, S. Goldhaber, M. Dubson, E. Kinney, O. DeWolfe, P. Beale, K. Perkins, *STEM Education Symposium*, Boulder CO (August, 2009)
- **Thinking Like a Physicist: Transforming Upper Division Electricity & Magnetism**, S. V. Chasteen, S. J. Pollock, M. Dubson, E. Kinney, P. Beale and K. Perkins, PERC, Ann Arbor, MI (July 2009);
- **Tapping into Juniors’ Understanding of E&M: Development of the CUE Assessment**, S. V. Chasteen and S.J. Pollock, PERC, Ann Arbor, MI (July 2009).
- **Cognitive Issues in Upper Division E&M**, S.J. Pollock and S.V. Chasteen, invited poster, PERC, Ann Arbor, MI (July 2009)
- **Transforming Upper Division E&M**, S.V. Chasteen, S. Pollock, W. Handley, D. Tarshis, P. Beale, AAPT, Edmonton AB (July 2008)
- **Assessing Student Understanding in Upper Division E&M**, S. V. Chasteen and S. J. Pollock, PERC, Edmonton AB (July 2008).

## INTERVIEWS, AWARDS & MENTIONS

- **SPORE Award**, American Association for the Advancement of Science. Awarded to Beyond Penguins and Polar Bears webzine, for which I produced the podcast. <http://bit.ly/eXuJsK>
- **Members in the News**, American Association of Physics Teachers eNNOUNCER, September 2010. Mention and link to sciencegeekgirl blog.
- **Educators that Rock** series for *findingEducation*, March 2010. <http://bit.ly/bL3Gka>
- **Forum on Graduate Student Affairs**, American Physical Society, 2007. <http://bit.ly/bTTLdo>
- **NetWatch: The NanoBeat**. *Science Magazine: Random Samples*. SmallTalk podcast featured, March 2007. <http://bit.ly/bjrKYW>

- **Best Professional Development Podcast**, awarded to *Science Teaching Tips* podcast by the Podcast for Teachers. July 2, 2007. <http://www.podcastforteachers.org/TechpodArchives.html>
- Blog and posts mentioned in a variety of places throughout the blogosphere and twitterverse.

## CURRENT & PENDING GRANTS

**PI. AAPT PERLOC, *Learning about Teaching Physics Podcast Project***, \$2,500, 2010–2011.

This mini-grant allows for the creation of a pilot podcast series, highlighting key results in education research for working physics teachers, and its direct applicability to classroom practice.

**External Evaluator: NSF IGERT, *Interdisciplinary Graduate Education in Computational Optical Sensing and Imaging***, \$2,500,000, 2008–2013. PI: Rafael Piestun. DUE-0801680.

This program award supports an interdisciplinary graduate education program in Computational Optical Sensing and Imaging (COSI) at the University of Colorado at Boulder. The goal is to educate the future workforce in this fast-developing area and in its technological and societal implications

**External Evaluator: NSF DUE CCLI (Phase III). *Community of Astronomy Teaching Scholars (CATS) – National Implementation Program for Learner-Centered Astronomy Teaching***. \$1,999,997. 2007–2011. PI: C. Impey. DUE-0715517.

The primary goals of CATS are to: 1) increase the number of earth and space science (ESS) instructors conducting fundamental research on teaching and learning; 2) increase the amount of research-validated curriculum and assessment instruments available for use in ESS classrooms; and 3) increase the number of people prepared to develop and conduct their own Teaching Excellence Workshops.

**Personnel: NSF DUE CCLI, *Using a Research-based Approach to Reform Upper-division Quantum I and E&M I***, \$150,000, 2008–2011. PI: Katherine Perkins. DUE-0737118.

Project designed to couple to CU's Science Education Initiative. One of the first attempts nationally to transform upper division physics courses based on the research within physics education research.

**Video Production: O'Donnell Foundation. *PhET Simulations***, \$455,000. 2010–2011. PI: Katherine Perkins.

This project will generate research and teaching materials to expand the PhET interactive simulations to middle school.

**Facilitator: Science Education Initiative. *Astronomy Proposal***. \$481,000. 2011–2014. PI: Douglas Duncan.

This project aims to improve student teaching and learning in introductory astronomy courses, through the development of learning goals, instructional improvements, and assessment.

**External Evaluator: NSF-DRK12. *Expanding PhET Interactive Science Simulations to Grades 4–8: A Research-based Approach***. \$1,997,695, 2010–2013. PI: Katherine

Perkins.

This grant provides funding to research the use of PhET simulations in the middle school classroom, and to develop new simulations for this audience.

**Video Production: NSF TUES Type 1. *Physics Education Research User's Guide: Continuing Development*** (pending) \$199,985. 2012 - 2014. PI: Sarah McKagan. Co-PIs: Bruce Mason and Beth Cunningham

**External Evaluator: NSF TUES. *An Initiative to Improve Undergraduate Education in Atmospheric Science and Oceanography*** (pending). \$600,000, 2011 - 2014. PI: Katja Friedrich.

This project aims to improve the quality of undergraduate courses in the earth sciences through the development of learning goals, student-centered teaching techniques, and assessment.

**External Evaluator: NSF-TUES. *The Legacy Program: Creating an Impact at All Levels of STEM through the Professional Development of Future Faculty*** (pending). 2012-2015. PI: Edward Prather.

This project will create a workshop series and online professional development community of practice for future science faculty and educators. Aimed at Earth and Space Science graduate students and postdocs, this project uses the research base of cognition and curricular reform previously developed at the University of Arizona.

## PEER-REVIEWED PUBLICATIONS

Full articles at <http://sciencegeekgirl.com/publications.html>

The Colorado Upper-Division Electrostatics (CUE) Diagnostic: A conceptual assessment for the junior level, **S. V. Chasteen**, R. E. Pepper, S. J. Pollock and K. K. Perkins, *Phys. Rev. S.T.: Phys. Educ. Res.* (submitted).

Thinking Like a Physicist: Does Transforming Upper-Division Electricity & Magnetism Help? **S. V. Chasteen**, R.E. Pepper, S. J. Pollock, K. K. Perkins, P. Beale and C.E. Wieman, *Am. J. Phys.* (submitted).

Teasing Out the Effects of Tutorials via Multiple Regression, S. V. Chasteen, PERC Proceedings 2011, AIP Press (to be published).

But Does It Last? Sustaining a Research-Based Curriculum in Upper-Division Electricity & Magnetism. **S. V. Chasteen**, R. E. Pepper, S. J. Pollock, K. K. Perkins. PERC Proceedings 2011, AIP Press (to be published).

Teaching with Learning Assistants, **S. V. Chasteen** and V. Otero, online module for *Science Education Resource Center* (2010). <http://bit.ly/atzeHU>

Upper-Division Students' Difficulties with Ampere's Law. C. Wallace and **S. V. Chasteen**, *Phys. Rev. Spec. Top.: Phys Ed. Rsrch* 6, 020115.

A Thoughtful Approach to Instruction: Course Transformation for the Rest of Us. **S.V. Chasteen**, K. K. Perkins, S. J. Pollock, C.E. Wieman. *J. Coll. Sci. Teach.* March/April 2011.

Our Best Juniors Still Struggle with Gauss' Law. R. E. Pepper, **S. V. Chasteen**, S. J. Pollock, and K. K. Perkins, *PERC Proceedings 2010*, AIP Press, 2010.

The Use of Concept Tests and Peer Instruction in Upper-Division Physics. S. J. Pollock, **S. V. Chasteen**, K. K. Perkins, M. Dubson, *PERC Proceedings 2010*, AIP Press, 2010.

Tapping into Juniors' Understanding of E&M: The Colorado Upper-Division Electrostatics (CUE) Diagnostic, **S. V. Chasteen** and S. J. Pollock, *PERC Proceedings 2009*, AIP Press (2009).

A Research-Based Approach to Assessing Student Learning Issues in Upper-Division Electricity & Magnetism, **S. V. Chasteen** and S. J. Pollock, *PERC Proceedings 2009*, AIP Press, 2009.

Longer term impacts of transformed courses on student conceptual understanding of E&M, S. J. Pollock and **S. V. Chasteen**, *PERC Proceedings 2009*, AIP Press, 2009.

Transforming Upper-Division Electricity & Magnetism, **S.V. Chasteen** & S.J. Pollock, *PERC Proceedings 2008*, AIP Press, 2008.

The Salty Science of the Aluminum-Air Battery, **S.V. Chasteen**, N.D. Chasteen, P. Doherty, *The Physics Teacher*, December 2008.

Toward optimization of device performance in conjugated polymer photovoltaics: Charge generation, transfer and transport in poly(*p*-phenylene-vinylene) polymer heterojunctions. **S.V. Chasteen**, V. Sholin, S. A. Carter, G. Rumbles. *Sol. Energy Mat. & Sol. Cells* (92), 651-659, 2008.

The effect of broken conjugation on the excited state due to ether-linkage in a cyano-substituted poly(p-phenylene vinylene) conjugated polymer: CN-PPV vs. CN-ether-PPV, S. V. Chasteen, G. Rumbles, S. A. Carter, J. *Chem. Phys.* (24), 214704, 2006.

Blended versus Layered Structures in Polymer Photovoltaics. S. V. Chasteen, J. O. Haerter, G. Rumbles, C. Scott, S. A. Carter. *J. Appl. Phys.* (99), 033709, 2006.

Numerical Simulations of Layered and Blended Organic Photovoltaic Cells, J. O. Haerter, S.V. Chasteen, S. A. Carter, J. C. Scott, *Applied Physics Letters* (86), 164101, 2005.

## DIGITAL MEDIA PRODUCTIONS

### STEM education videos

<http://stemvideos.colorado.edu>

Wrote and directed series of high-quality videos for faculty on educational techniques:

- Clickers: Students and Teachers Speak
- Anatomy of a Clicker Question
- Explain Clickers to Your Students
- Group Work in the College Classroom
- How To Use Clickers Effectively
- Do Clickers Help Students Learn?
- Clickers in Upper Division Courses

### Learning about Teaching Physics

<http://perusersguide.org/podcasts>

Awarded mini-grant to produce podcast communicating physics education research to practicing physics teachers. In progress.

### Sciencegeekgirl blog

<http://blog.sciencegeekgirl.com>

Science education blog, well-read and often-cited within the science blogosphere.

### NSDL blog -- *Expert Voices: sciencegeekgirl*

<http://expertvoices.nsd.org>

### The Active Class blog.

<http://theactiveclass.com>

Blog regularly on teaching and learning with technology for MacMillan, Inc.

### Beyond Penguins Podcast

<http://beyondpenguins.nsd.org/podcast>

Dec. 2008-May 2010. Co-host, writer, & producer of podcast series for K-5 educators.

### Science at the Poles: Video Production.

<http://bit.ly/9SeROW>

Beyond Penguins and Polar Bears. May 2010. Edited video for website for K-5 teachers.

### SmallTalk

<http://www.nisenet.org/podcasts>

January 2007 - August 2008. Creator, host, co-writer, producer.

Monthly 25 minute podcast on nanotechnology, Featured in *Science* (Mar. 2, 2007).

### Science Teaching Tips

<http://exploratorium.edu/ti/podcasts>

May 2006-present. Creator, host and producer.

Year-long series of 5-10 minute podcast series for science teachers.

### Once & Future Climate

<http://www.exo.net/~drsteph/webcasts.html>

Nov. - Dec. 2006, Co-host and co-writer. Three live webcasts on global climate change.

### Cassini Update

<http://www.exo.net/~drsteph/webcasts.html>

May 2007. Co-host and co-writer. Live webcast on findings from the Cassini spacecraft.

**First Cloned Horse**, *National Public Radio*, aired August 7, 2003 on Morning Edition.

**Protein Prompts Labor Activation**, *National Public Radio*, aired August 2, 2003.

**NASA... Down to Earth?** *National Public Radio*, web-cast August 10, 2003.

## **PUBLICATIONS FOR A POPULAR AUDIENCE**

Full articles at <http://sciencegeekgirl.com/publications.html>

Professional Development Guide: Physics for the 21<sup>st</sup> Century. *Harvard-Smithsonian Center for Astrophysics and Annenberg Media*. August, 2010.

Cracking the Story of Fracture. *Physical Review Focus*, January 29, 2010.

Speaking of Physics: The Art of Science Communication. *American Physical Society Forum on Education newsletter*, Spring 2010.

How a Scientist Becomes a Freelance Science Writer, *National Association of Science Writers website*, January 2010.

Cool Facts about Heat. *Beyond Penguins and Polar Bears webzine*, December, 2009.

Physicists' Guide for Adopt a Physicist program. *American Institute of Physics*. December, 2009.

Spotlight on Hidden Physicists: Stephanie Chasteen. *Radiations* magazine of Sigma Pi Sigma (The Physics Honors Society), Fall, 2009.

Nuclear Waste Management after Yucca Mountain, *Science Magazine Podcast*, July 17, 2009.

Tiger Moths Jam Bat Sonar, *Science Magazine Podcast*, July 10, 2009.

Response to Classroom Clickers and the Cost of Technology, Letter to the Editor, *The Chronicle of Higher Education*, January 2009.

Why Physics Teachers Should Read Blogs, Websights column, *The Physics Teacher*, December 2008.

Podcasts in the Mathematics Classroom, *The California Mathematics Council Communicator*, December 2008.

Inside Mother of Pearl, *Physical Review Focus* (an APS publication), July 2007.

Inside a Solar Cell, co-author on companion web interactive for *PBS NOVA* program "Saved by the Sun," <http://www.pbs.org/wgbh/nova/solar/inside.html>. April 10, 2007.

Causal Relations: HIV in Guinea, *Science & Spirit* (bimonthly magazine), May/June 2005.

Exciton Dynamics in Conjugated Polymer Photovoltaics: Steady-State and Time-Resolved Optical Spectroscopy, *Ph.D. Dissertation*, December 2005.

Exciton Dynamics and Device Performance in Polythiophene Heterojunctions for Photovoltaics. S. V. Chasteen, S. A. Carter, G. Rumbles, *Proc. of SPIE* (5938), 59380J-1, 2005.

You're Not as Great as You Think You Are, *Science & Spirit*, May/June 2004.

Light Wave Outlasts Itself, *Physical Review Focus*, May 12, 2004.

Life Beyond Bars, *Science & Spirit*, March/April 2004.

Electronic Voting Unreliable Without Receipt, *Stanford Report*, Feb. 18, 2004.

Who Owns the Wind? *Science & Spirit*, January/February 2003.

City Buildings Rely on Renewable Power Sources, *Santa Cruz Sentinel*, May 16, 2003.

Bait & Switch, *Science & Spirit*, May/June 2003.

Sex and Gender Scientists Explore a Revolution in Evolution, *Stanford Report*, Feb. 16 2003. Reprinted widely, and earned mention from a writer for National Geographic.

Future Farmers, *Santa Cruz Sentinel*, February 1, 2003.

Cosmos "Big Bubble" Theorist Alan Guth to Lecture, *The Stanford Report*, Jan. 22, 2003.

Down on the (Research) Farm, *Science's Next Wave* (AAAS), Nov. 21, 2002.

Solar Power Still Too Expensive, *Santa Cruz Sentinel*, November 10, 2002.

Solar Energy Research Heats Up, *Santa Cruz Sentinel*, Page 1, Nov. 10, 2002.