

STEPHANIE V. CHASTEEN

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BACKGROUND SUMMARY

Ph.D. Physicist with 8 years experience in:
science journalism • social & digital media • formal & informal science education
inquiry learning • education research • K-12 teacher professional development

Talent for learning, getting new projects off the ground, organizing & disseminating information, and a creative passion for broad communication of science.

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 educational assessment.
- Excellent written and verbal skills, for public and professional audiences.
- Audio and podcast production.
- Digital video production.

FORMAL EDUCATION

University of California – Santa Cruz. M.S. and Ph.D., Physics, 2002 and 2005.
Dissertation: *“Exciton dynamics of polymer heterojunctions for photovoltaics.”*

Bard College. B.A., Social Psychology, 1995.

SCIENCE EDUCATION & JOURNALISM EXPERIENCE

NATIONAL SCIENCE DIGITAL LIBRARY, Boulder, CO Oct. 2008–present
Podcast Consultant • Robert Payo
Co-developed and produced podcast for K–5 educators on using polar science to address student misconceptions about science.

SCIENCE EDUCATION INITIATIVE, Univ. of Colorado, Boulder Sept. 2007–present
Science Teaching Fellow • Dr. Carl Wieman and Dr. Paul Beale
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.

CU SCIENCE DISCOVERY, Boulder, CO July 2008
Lecturer: Physics for Fun • Dr. Jeffrey Kidder
Co-taught an inquiry-based physics class for children ages 8–10.

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 web seminars.
- Co–wrote and produced several audio podcasts, including *SmallTalk* (on nanotechnology) and *Science Teaching Tips* (for educators).
- Acted as a scientific advisor for the museum.
- Co–wrote and co–hosted a series of live webcasts on the museum floor.

SAN QUENTIN STATE PRISON, San Quentin, CA 2006–2007
Teaching Assistant & Tutor • Prison University Project
Taught hands–on mathematics activities to San Quentin inmates.

EMERGENT MATTER PROJECT (ICAM) July 2005–Nov. 2006
Project Coordinator • Dr. David Pines
Acted as central coordinator for an international group of scientists and communicators on a nascent public communication project.

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.

TWIN CITIES PUBLIC TELEVISION, St. Paul, MN Fall 2003
Research Assistant • Richard Hudson and Dr. Michael Riordan
Researched resources for a public television production on particle physics.

FREELANCE SCIENCE JOURNALIST 2002–present
Published over a dozen articles on science for a public audience in print, web, radio, and press–release format. Topics include: optics, energy, computer science, biology, and agriculture. Publication list attached.

PROFESSIONAL AFFILIATIONS

National Association of Science Writers (2001–present) • American Association of Physics Teachers (2006–present) • National Science Teachers Association (2007–present) • American Association for the Advancement of Science (2002–2007) • American Physical Society (2001–present)

DIGITAL MEDIA PRODUCTIONS

Sciencegeekgirl blog <http://www.sciencegeekgirl.wordpress.com>
Science education blog, well–read and often–cited within the science blogosphere.

Beyond Penguins Podcast <http://www.beyondpenguins.nsd.org>
Dec. 2008–present. Co–host, writer, and producer. Podcast series for K–5 educators.

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://scienceteachingtips.podomatic.com>
May 2006–present. Creator, host and producer.
Year–long series of 5–10 minute podcast series for science teachers.

Once & Future Climate / Cassini Update <http://www.exo.net/~drsteph/webcasts.html>

Nov. – Dec. 2006, May 2007. Co-host and co-writer.

Series of 3 webcasts on global climate change, and one live webcast on findings from the Cassini spacecraft. Live on the floor of the Exploratorium.

LEADERSHIP & VOLUNTEER EXPERIENCE

FRIENDS OF GUINEA

1999–present

Founding officer, webmaster, secretary, membership director

Spearheaded and served as central leader for a new non-profit organization (<http://www.friendsofguinea.org>) devoted to Peace Corps Guinea. Coordinated and managed group activities and volunteers. Developed website and group infrastructure (email lists, file management, incorporation, membership). Assisted in fundraising of over \$50,000 for development projects in Guinea.

U.S. PEACE CORPS, Guinea-Conakry, West Africa

1997–1999

Community Development & Public Health Volunteer

Worked with diverse groups of people to develop projects for the good of the community. Taught public health, sanitation, and family planning to villagers and health educators. Learned local language and customs in order to promote successful collaboration between village residents and officials. Wrote four successful grant proposals and managed the construction and financial transparency of a health post.

SELECTED PRESENTATIONS & WORKSHOPS

Workshops

- Solid Ways to Teach Fluids, CO Science Conference, Denver, CO (2007).
- Demonstrations and Ideas from the Exploratorium, CO AAPT, Wheat Ridge, CO (2008)
- Using and Making Audio Podcasts in the Mathematics Classroom, California Mathematics Council, Asilomar CA (2007)
- Attack of the Podpeople: Creating and using podcasts in the classroom, Exploratorium, San Francisco (2007).
- Sparking Excitement for Electricity: Electrostatic activities that work. CMSESMC Math/Science Conference, Redwood City (2007).

Talks and presentations

- Clicker Use in Upper-Division Courses, Invited talk, AAPT, Chicago, IL (2009).
- Transforming Upper-Division E&M, AAPT, Edmonton, AB (2008).
- Get the Word Out: My Life as a Scientist Communicator, Invited talk, *Ecological Society of America*, San Jose, CA (2007)
- Hear Me Out: Communicating nanotechnology through podcasts. *Communicating Science to Broader Audiences*, Lincoln, NE (2007)
- SmallTalk: Conversations about nanotechnology through podcasts, AAPT, Seattle WA (2007).
- Speaking of Physics... The art of science communication, Department Colloquium, *Physics Dept., San Jose State University*, San Jose CA (2006).
- Power from Plastics! Conjugated Polymer Photovoltaics, Invited Talk, *Physics Dept., University of the Pacific*, Stockton CA (March 18, 2003).
- My Big Fat Science Writing Career and My Summer at NPR *Physics and Environmental Studies Depts., U.C. Santa Cruz* (2003, 2004, and 2005).

SELECTED PUBLICATIONS

Links to full articles, and peer-reviewed work, at <http://exo.net/~drsteph>

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

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

Transforming Upper-Division Electricity & Magnetism, S.V. Chasteen & S.J. Pollock, *Proceedings of the Physics Education Research Conference*, July 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.

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. Reprinted widely.

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

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.

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

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

Scientists Explore a Revolution in Evolution, *Stanford Report*, Feb. 16 2003.

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.