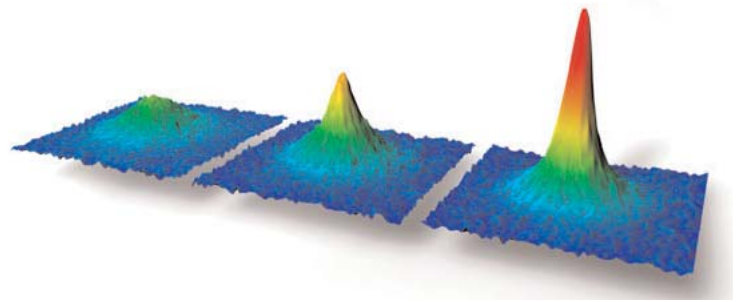


# ABSOLUTE ZERO



## WHAT IS ABSOLUTE ZERO?

*Absolute Zero*, a two-part public television special scheduled to air in 2007, will demonstrate how civilization has been profoundly affected by the mastery of cold. Underwritten by the National Science Foundation and the Alfred P. Sloan Foundation, the programs are based largely on Tom Shachtman's acclaimed book, *Absolute Zero and the Conquest of Cold*. The programs are a unique blend of science, cultural history and adventure story and will explore the enormous impact that the mastery of cold has had on society through such technologies as air conditioning, refrigeration and liquefied gases.

*Absolute Zero* will feature the struggles of philosophers, scientists and engineers over four centuries as they attempted to understand the nature of cold, to explore its deepest reaches, to create the "cold technologies" that have transformed society and to seek a deeper understanding of matter itself.

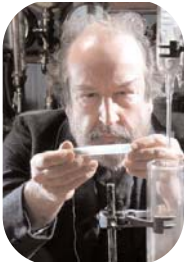
Produced by British Emmy Award winner David Dugan, in collaboration with Meredith Burch of Meridian Productions, the programs will demonstrate how science, fueled by serendipitous insight and sheer determination, moves forward – at times fitfully – gradually advancing our understanding of the world.

According to renowned physicist Russell Donnelly, "Life in the 21<sup>st</sup> century is powerfully shaped by the mastery of cold. *Absolute Zero* will call long overdue attention to the remarkable strides that have been made in low-temperature physics, a field that has produced 27 Nobel Prizes. The documentaries will illuminate how technological mastery of the cold was achieved and how human society has evolved through the employment of cold."

## PUBLIC OUTREACH CAMPAIGN

A national campaign has been launched that will promote the television programs and raise awareness about the amazing field of low-temperature physics. Log on to the official Web site: [absolutezerocampaign.org](http://absolutezerocampaign.org). The site includes a wide range of educational materials and suggested activities, including pages on superconductivity, thermodynamics, refrigeration and much more!

The *Absolute Zero Community Education Outreach Guide*, a resource for informal educators and teachers of students in grades 6-8 that focuses on topics covered both in the programs and on the Web site, is available online. The Guide will serve as a road map for comprehensive presentations including hands-on demonstrations, questions to encourage student participation, suggestions for how to lead the class, and ways to encourage the students to continue studying the science topic at hand. A companion *Science Educators' Outreach Guide* will also be available soon for those wanting to conduct presentations and talks surrounding low-temperature physics.



## STAY TUNED ...

Coming soon ... an *Absolute Zero* Webinar led by an outstanding scientist/educator. Viewers will receive tips on how to conduct effective and entertaining low-temperature physics presentations.

## NATIONAL SUPPORT

A number of prestigious national organizations are supporting the campaign, including:

### National Partners:

- Acoustical Society of America (ASA)
- American Association of Physics Teachers (AAPT)
- American Institute of Physics (AIP)
- American Physical Society (APS)
- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
- Association of Science-Technology Centers (ASTC)
- Cryogenic Society of America, Inc. (CSA)
- National Alliance of State Science and Mathematics Coalitions (NASSMC)
- National High Magnetic Field Laboratory
- Optical Society of America (OSA)
- Society of Physics Students (SPS) / Sigma Pi Sigma
- USA TODAY Education

### National Participants:

- Department of Energy, Office of Science (DOE)
- National Institute of Standards and Technology (NIST)
- National Science Teachers Association (NSTA)

## HOW CAN I GET INVOLVED?

**Become an *Absolute Zero* Expert!!** -- Are you a low-temperature physics expert who has experience with educational outreach programs? Are you an educator who is looking for new and fun ways to get your students excited about physics? Know of any innovative physics demonstrations? Are you looking to participate in local outreach activities? We would love to hear from you! Visit the "Ask the Experts" section of the campaign Web site and fill out the short survey to become an *Absolute Zero* expert.

If you would like to participate in the campaign or help spread the word, please contact either Linda Devillier ([ldevillier@devillier.com](mailto:ldevillier@devillier.com)), president; or Allan Childers ([achilders@devillier.com](mailto:achilders@devillier.com)), project manager at Devillier Communications, Inc. (DCI) -- 202-885-5544.

**Remember to visit the campaign Web site:**

**[absolutezerocampaign.org](http://absolutezerocampaign.org)**