

Pittsburgh SciTech Festival
c/o Carnegie Science Center
One Allegheny Avenue
Pittsburgh, PA 15212-5850

Non-Profit Org.
U.S. Postage
PAID
Pittsburgh, PA
Permit #788



Experience It!

JOIN US APRIL 17-25

For more information call 412-237-3335
or visit www.SciTechFestival.org

EVENTS & ACTIVITIES FOR EVERYONE

at Carnegie Science Center

and these partner locations:

Children's Museum of Pittsburgh
Heinz Field
Mattress Factory
Pittsburgh Filmmakers
Pittsburgh Glass Center

Vision and Mission

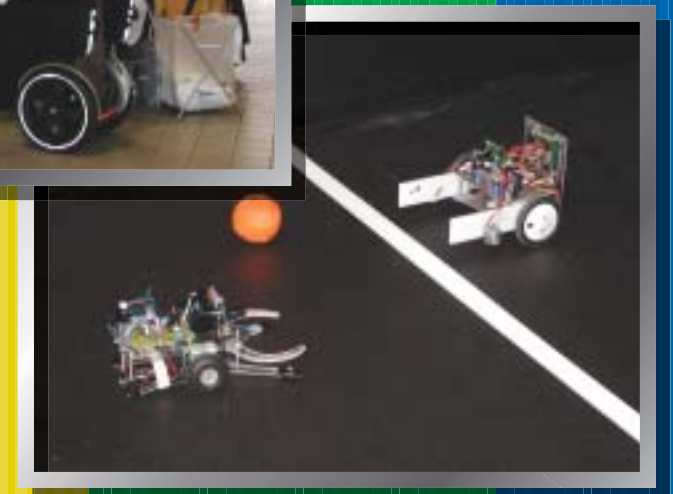
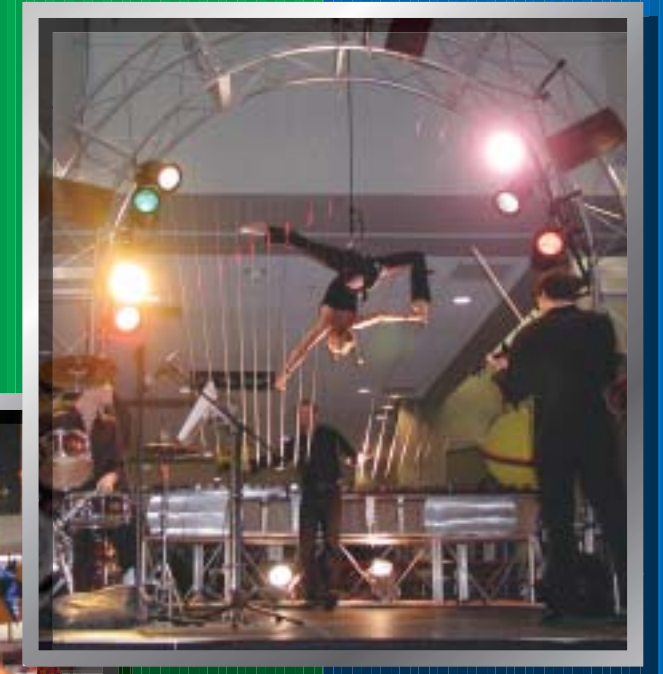
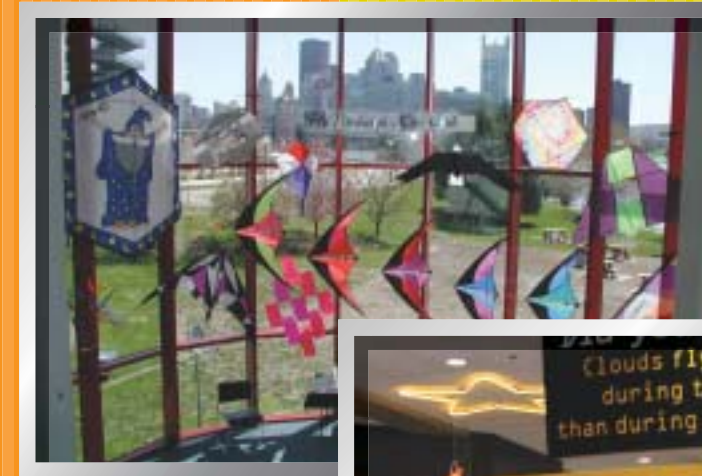
The Pittsburgh International Science and Technology (SciTech) Festival will showcase Pittsburgh as an exciting and prestigious center of science and technology.

SciTech Festival is a fun-filled community celebration of discovery and innovation that will energize regional science and technology development.



APRIL 17-25, 2004

**Carnegie Science Center
& Other Locations**



EVENTS & ACTIVITIES FOR EVERYONE

It's the only event
of its kind in the
United States!

412-237-3335
www.SciTechFestival.org

Blowing Glass

Kids blow sugar bubbles to simulate glassblowing and learn more about this art form through video, photos and a fun quiz from the Pittsburgh Glass Center.

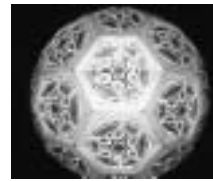
WHERE: Carnegie Science Center Lobby
WHEN: Saturday and Sunday/10:00am-5:00pm



Creative Kaleidoscopes

Experiment with mixed media materials to design creative kaleidoscopes. Learn about installation art and the Mattress Factory, a contemporary art museum.

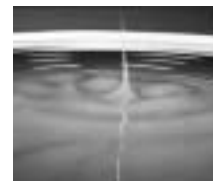
WHERE: Carnegie Science Center Lobby
WHEN: Saturday only/10:00am-5:00pm



Sound Science and Art

Participate in hands-on demonstrations that illustrate the physical nature of sound with Mattress Factory artist in residence, Jeremy Boyle. Explore relationships between sound and visual art. Engage in experiential sound activities.

WHERE: Carnegie Science Center Overlook
WHEN: Saturday only/1:00-4:00pm



Geodesic Spheres

Experiment with mixed media materials to design your very own geodesic sphere, courtesy of the Mattress Factory.

WHERE: Carnegie Science Center Lobby
WHEN: Sunday only/10:00am-5:00pm



Sound Design "Foleys"

Learn basic principles of Jack Foley's innovative sound design ideas in an entertaining multimedia experience from In Tune with the Arts Studios. Create sound effects that are difficult to record during production - such as far-flung action scenes or large-scale movement of people and material - and controlled sound effects in a studio environment.

WHERE: Carnegie Science Center Lobby and Classrooms 4 & 5
WHEN: Saturday and Sunday/10:00am-5:00 pm



Live Performance - Earth Harp

See Highlights, page 1, for full description.

WHERE: Carnegie Science Center Atrium
WHEN: Saturday and Sunday/10:30-11:00am, 2:30-3:00pm, and 4:30-5:00pm; Try your hand at playing Earth Harp after performances!



ROBOSTILTS Live Performance & Demonstration

ROBOSTILTS is an amazing new performance ensemble. They combine futuristic costuming, innovative props and impressive skill to create awe-inspiring, original entertainment. They will show you how to juggle props, glowing objects and gigantic hoops and reveal the science behind it all.

WHERE: Carnegie Science Center Science Stage
PERFORMANCE: Saturday and Sunday/Noon-12:45pm
DEMONSTRATION: Sat and Sun/11:00-11:30am; 3:30-4:00pm



"A Wrinkle in Time"

See Highlights, page 1, for full description.

WHERE: Carnegie Science Center Works Theater
SHORT FEATURE: Saturday/11:00-11:45am; Sunday/1:00-1:45pm
FULL LENGTH: Saturday & Sunday/2:00-3:30pm;
Saturday night/7:00-8:30pm



Dove Releases

Join the National Aviary in a hands-on program on the process of training homing doves. Experience a live dove release.

WHERE: Outside Carnegie Science Center Main Entrance
WHEN: Saturday and Sunday/Noon, 1:00pm, and 3:00pm



Blast Off

Join the Pittsburgh Space Command NAR3473 and Tripoli Rocketry Association, Pittsburgh Prefecture to learn more about rockets. Also, experience a rocket launch demonstration by Space Command.

WHERE: Outside Carnegie Science Center OMNIMAX® Lobby
WHEN: 12:30pm, 1:30pm & 3:30pm/Exhibit: 10:00am-5:00 pm



Make Some Noise (Sunday afternoon)

During this interactive program, families will explore relationships between sound and visual art by investigating the multi-media artwork of Mattress Factory artists Jeremy Boyle and Rolf Julius. Participants will step inside multi-sensory installations and experience natural, industrial, musical and urban sounds.

WHERE: Mattress Factory, North Side
WHEN: Sunday only/1:00-4:00 pm
COST: \$5.00

Star on Screen

Design your own robot costume and star on screen! Provided: Materials, "How-tos" and props. Bring: Plenty of imagination. Take home: A video of your performance! A partnership with the Pittsburgh International Science and Technology Festival and Pittsburgh Filmmakers

WHERE: Carnegie Science Center Lobby
WHEN: Saturday and Sunday/costume making: 10:00am-5:00pm, videotaping: 1:00-5:00pm

What's Next?

See some of Time Magazine's coolest inventions of 2003 and Popular Science's 2003 "Best of What's New." Includes a green glowing jacket of Luminex, a fabric that emits light and is made of luminous fibers used in the largest scientific experiments of sub-nuclear physics; a bandage capable of stopping severe external hemorrhage (bleeding); Aibo, Sony's 'pet'; a Segway, and more!

WHERE: Carnegie Science Center Lobby
WHEN: Saturday and Sunday/10:00 am-5:00 pm

Pittsburgh Regional Science and Engineering Fair Winners' Gallery Demonstration

See Highlights, page 2, for full description

WHERE: Carnegie Science Center, 2nd Floor
WHEN: Sat and Sun/10:00am-5:00pm

Examine Animal Eggs

Come and meet a few animals up close and personal from the Pittsburgh Zoo & PPG Aquarium's Education Department. You will also have the opportunity to examine and touch biofacts such as eggs, pelts and skins.

WHERE: To Be Determined
WHEN: Sunday only/1:30-3:30pm

STAT MedEvac

EMS personnel demonstrate life-saving techniques. Also, try your hand at the video game simulation of landing a STAT MedEvac helicopter.

WHERE: Carnegie Science Center Lobby
WHEN: Saturday and Sunday/10:00am-5:00pm

Create Fun Art

Pittsburgh Center for the Arts leads a variety of fun and creative activities and presents the science involved.

WHERE: Carnegie Science Center Lobby
WHEN: Saturday and Sunday/10:00am-5:00 pm



Girls' Math and Science Partnership

Discover what explanatoids™ are and make your own-- from hand-drawn posters to digital art using more advanced software.

WHERE: Carnegie Science Center Lobby
WHEN: Saturday and Sunday/10:00am-5:00pm

Festival Exhibits & More!

- Games and prizes and hands-on fun!
- Action Earth: Focus on the Environment includes junkyard treasures transformed into furnishings for your living room - artsy, recycled and fun!
- Take the Pittsburgh Challenge! Be an inventor. What new uses of science and technology can you think of that would make a difference in your life?
- Test your savvy on Pseudoscience - Myth vs. Reality.

WHERE: Carnegie Science Center Lobby and OMNIMAX® Lobby
WHEN: Saturday and Sunday/10:00am-5:00pm

Miracle in the Mine

Featuring John Unger, Quecreek miner

Meet John Unger, Quecreek miner, and Joseph Sbaffoni, Chief - Deep Mine Safety Division, Pennsylvania Department of Environmental Protection (DEP). Joseph played a major role in the Quecreek Mine rescue. See their presentation on how advanced technology was used to achieve the "miracle in the mine."



WHERE: Carnegie Science Center Science Stage
WHEN: Saturday and Sunday/1:00-1:45pm

Being Andy Warhol

Learn about the science of some of Andy Warhol's artistic processes and use these concepts to make artwork of your own. Recreate your favorite pop stars in fabulous colors or design fancy shoes in the spirit of Warhol's early illustrations.



WHERE: Carnegie Science Center Lobby
WHEN: Saturday and Sunday/10:00am-5:00pm

“Find Out What You Are Made Of” Workshop

Explore DNA — the structure that makes you unique. Take a look at cells under a microscope and then plunge into those cells to check out the DNA. You'll even make a candy DNA model to take home with you! Presented by Carnegie Museum of Natural History.
(For Elementary School Students)

WHERE: Carnegie Science Center Classrooms 4 & 5
WHEN: Monday only/10:00am

Great Gadgets Workshop

Students build doorbells, alarms, sirens and more. Help provided.
(For Elementary School Students)

WHERE: Carnegie Science Center Discovery Island
WHEN: Monday only/10:00am, 11:00am, and Noon

Dove Releases

Join the National Aviary in a hands-on program on the process of training homing doves. Experience a live dove release.

WHERE: Outside Carnegie Science Center Main Entrance
WHEN: Monday & Tuesday/11:15am, and 12:15pm



“1001 Black Inventions”

See Highlights, page 1, for full description.

WHERE: Carnegie Science Center Science Stage
WHEN: Monday and Tuesday/Noon



Blowing Glass

Kids blow sugar bubbles to simulate glassblowing and learn more about this art form through video, photos and a fun quiz from the Pittsburgh Glass Center.

WHERE: Carnegie Science Center Lobby
WHEN: Monday and Tuesday/9:00am-5:00pm



“A Wrinkle in Time”

See Highlights, page 1, for full description.

WHERE: Carnegie Science Center Works Theater
SHORT FEATURE: Monday and Tuesday/10:00-10:45am/11:00-11:45am
FULL LENGTH: Monday and Tuesday/Noon-1:30pm



Enjoy ROBOSTILTS daily!

Girls’ Math and Science Partnership

Try out prototypes for the Click! game, a large-scale urban game designed for middle school girls. It’s a fun introduction to math, science and technology.

WHERE: Carnegie Science Center Lobby
WHEN: Monday and Tuesday/9:00am-5:00pm

Creative Kaleidoscopes

Experiment with mixed-media materials to design creative kaleidoscopes. Learn about installation art and the Mattress Factory, a contemporary art museum.



WHERE: Carnegie Science Center Lobby
WHEN: Monday only/9:00am-5:00pm

Dinosaur Fun

Make a model of Pennsylvania's state fossil, the Trilobite, from Carnegie Museum of Natural History. Come face to face with Carnegie's prehistoric creatures. Encounter fossils such as T-rex teeth and Stegosaurus spikes.



WHERE: Carnegie Science Center Lobby
WHEN: Monday and Tuesday/9:00am-5:00pm

Create Fun Art

Pittsburgh Center for the Arts leads a variety of fun and creative activities and presents the science involved.



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See some of *Time Magazine's* coolest inventions of 2003 and *Popular Science's* 2003 “Best of What’s New.” Includes a green glowing jacket of Luminex, a fabric that emits light and is made of luminous fibers used in the largest scientific experiments of sub-nuclear physics; a bandage capable of stopping severe external hemorrhage (bleeding); Aibo, Sony's 'pet'; a Segway, and more!



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WHEN: Monday and Tuesday/9:00am-5:00pm

Geodesic Spheres

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WHERE: Carnegie Science Center Lobby
WHEN: Tuesday only/9:00am-5:00pm

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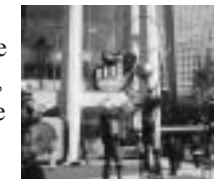
WHERE: Carnegie Science Center OMNIMAX® Lobby
WHEN: Monday and Tuesday/9:00am-5:00pm



ROBOSTILTS Live Performance

ROBOSTILTS is an amazing new performance ensemble. They combine futuristic costuming, innovative props, and impressive skill to create awe inspiring original entertainment.

WHERE: Roaming throughout Carnegie Science Center
WHEN: Monday and Tuesday/9:00am-1:00pm



Pittsburgh Regional Science and Engineering Fair Winners’ Gallery Demonstration

See Highlights, page 2, for full description.

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Star on Screen

Design your own robot costume and star on screen!

Provided: Materials, "How-tos" and props.

Bring: Plenty of imagination.

Take home: A video of your performance!

A partnership with the Pittsburgh International Science and Technology Festival and Pittsburgh Filmmakers

WHERE: Carnegie Science Center Lobby
WHEN: Monday and Tuesday/costume making: 9:00am-5:00pm; videotaping:10:00am-1:00pm



Make Rubber Balls

Join in the fun with the Children’s Museum of Pittsburgh. Make and take! Learn the recipe for making a rubber ball. Also, be sure to visit the Robot Zoo at the Children’s Museum through May 9. Robotic animals, real fun!

WHERE: Carnegie Science Center Lobby
WHEN: Monday and Tuesday/9:00am-5:00pm



Live Performance - Earth Harp

See Highlights, page 1, for full description.

WHERE: Carnegie Science Center Atrium
WHEN: Mon and Tues/10:45am and 12:45 pm.
Try your hand at playing Earth Harp after performances!



Make Your Own Rock Specimen Kit

Learn something new about your world! Imagine the extent to which we have become dependent upon minerals in our daily lives. Our light, power, heat, windows, washers and more are made of mineral products. The National Institute for Occupational Safety and Health (NIOSH), in partnership with the Pittsburgh Section of the Society for Mining, Metallurgy and Exploration will give away 10-specimen rock and mineral kits.

WHERE: Carnegie Science Center OMNIMAX® Lobby
WHEN: Monday and Tuesday/9:00am-5:00pm

Robotics Workshop

Students program robots that move autonomously around their environment. They will learn to write simple syntax-based programs using "NQC," a shareware application available for free over the Internet, and to control LEGO robots while learning about light and touch sensors and conditional statements. Presented by PRIME, Partnership for Regional Innovation in Manufacturing Education.

(For Middle School Students)

WHERE: Carnegie Science Center Creative Technology Center
WHEN: Tuesday only/10:00am, 11:00am and Noon

DNA Extraction Workshop

Our DNA makes us unique. In this workshop, you'll have a chance to break down cells and pull out the DNA to touch, feel and explore. You'll even be able to take some home with you! Presented by Carnegie Museum of Natural History.

(For Middle School Students)

WHERE: Carnegie Science Center Lobby Classrooms 4 & 5
WHEN: Tuesday only/10:00am

SciTech Festival Night at PNC Park

Winners of the 65th Pittsburgh Regional Science and Engineering Fair will be presented with an on-field salute. 1st Place Category Award winners will be recognized by name during the salute. Special Discounted seats for all participants and their friends and family

WHERE: PNC Park, Pirates vs. Cubs
WHEN: Tuesday only/7:05pm
For more information, call (412) 325-4768

Tech Zone Exhibits

See page 12 for full description.

WHERE: Carnegie Science Center Main Lobby, Atrium, OMNIMAX® Lobby and 2nd Floor

WHEN: Wed-Fri/9:00am-5:00pm



“A Wrinkle in Time”

See Highlights, page 1, for full description.

WHERE: Carnegie Science Center Works Theater

SHORT FEATURE: Wed-Fri/10:00-10:45am

FULL LENGTH: Wed-Fri/12:30-2:00pm & Fri.night/7:00-8:30pm



“1001 Black Inventions”

See Highlights, page 1, for full description.

WHERE: Carnegie Science Center Science Stage

WHEN: Wednesday-Friday/11:00am

ROBOSTILTS Performance

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WHERE: Roaming throughout Carnegie Science Center

WHEN: 9:00am-1:00pm



Live Performance - Earth Harp

See Highlights, page 2, for full description.

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WHEN: Wed-Fri/9:30am and 1:30pm; Try your hand at playing Earth Harp after performances!



Festival Exhibits & More!

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-Take the Pittsburgh Challenge! Be an inventor. What new uses of science and technology can you think of that would make a difference in your life?

-Test your savvy on Pseudoscience - Myth vs. Reality.

WHERE: Carnegie Science Center Lobby

WHEN: Wednesday-Friday/9:00am-5:00pm

Gather, Shape and Blow (Wednesday Night)

Join the Pittsburgh Glass Center for a live glassblowing demonstration. Watch artists gather molten glass from a furnace at 2200° F, shape it with their hands and then blow it into amazing objects. Talk to the artists, ask questions and learn more about glass. Also, see and explore an exhibition of glass art created by summer instructors. Admission is free.

Call 412-365-2145 or visit www.pittsburghglasscenter.org.

WHERE: Pittsburgh Glass Center

WHEN: Wednesday night only, 6:00-8:00pm

Stem Cells Wars: What's at Stake?

(Open Mike Panel Discussion):

There are different kinds of stem cells and different ways to use them. What does stem cell research have to do with cloning, infertility, embryonic research, cures for Parkinson's and other diseases? What ethical and religious issues are being debated?

WHERE: Carnegie Science Center Science Stage

WHEN: Wednesday/10:00-10:50am and Noon-12:50pm

PANELISTS: *Med. Dir. In Vitro Fertilization Program, Magee-Women's Hospital, Judith Albert, MD; Biomedical Researcher in the Therapeutic Use of Stem Cells; Prof. of Theology & Ethics-Pittsburgh Theological Seminary, Ordained Minister-United Church of Christ Church Ronald Cole-Turner*

Genetic Engineering (Lecture Series):

What are some of the choices we will need to make? Designer children and more...

WHERE: Carnegie Science Center Planetarium

WHEN: Wednesday/10:00-10:50am

SPEAKER: *Assoc. Prof. of Human Genetics, Univ. of Pittsburgh, Lisa Parker, Ph.D.*



Advanced Materials Processes (Career Forum):

PPG Industries: Research Scientist and Research Technician
Sunoco Chemicals: Research Scientist, Linda Smith; Research Tech
Chatham College Student: Undergraduate Chemistry Major

WHERE: Carnegie Science Center Discovery Island

WHEN: Wednesday/10:00-10:50am

Tissue Engineering Workshop

Can people grow new limbs - like a salamander? Find out. Regenerative Medicine/Tissue Engineering requires biologists, physicists, chemists, engineers, computer engineers, material scientists and physicians. Workshop Challenge: Form your own company, fabricate bone tissue and assess the process. Sponsored by Pittsburgh Tissue Engineering.

WHERE: Carnegie Science Center Classrooms 1 & 3

WHEN: Wednesday/10:00-10:50am and 11:00-11:50am

SPEAKER: *Central Catholic High School teacher, Mark Krotec*

The Environment, Mines and Technology

(Open Mike Panel Discussion):

Featuring John Unger, Quecreek miner

Do we have the resources to produce the kind of detailed maps we need? GIS/GPS (Graphic Information Systems/Global Positioning Systems), Mine Drainage/Leaching, Detection and Protection.

WHERE: Carnegie Science Center Works Theater

WHEN: Wednesday/11:00-11:50am

PANELISTS: *U. S. Dept. of Energy, National Energy Technology Lab, Mining Engineer, Terry Ackerman*
Systems Scientist, CMU, Scott M. Thayer, Ph.D.
National Institute of Occupational Safety/Health, Research Physical Scientist, Michael Trevis



Brain Research (Lecture Series):

Brain mapping using MRI's (Magnetic Resonance Imaging) and more - what the latest research shows.

WHERE: Carnegie Science Center Buhl Planetarium

WHEN: Wednesday/11:00-11:50am

SPEAKER: *Professor, Psychology and Center for Neural Cognition, CMU, Marlene Behrmann, Ph.D.*



Medicine (Career Cameo Forum):

University of Pittsburgh Medical Center:
Clinical Pharmacist, Doug Widener, PharmD; Pharmacy Student; Respiratory Health and Occupational Health Technicians;
Carlow College: Prof. Nursing, Carol Caliendo, ND, CNM, CRNP

WHERE: Carnegie Science Center Discovery Island

WHEN: Wednesday/11:00-11:50am

It Takes Heart (Lecture Series):

Dr. Robert L. Kormos from UPMC is one of the world's most experienced surgeons with mechanical support of the heart. He has operated on most of the patients who have received artificial hearts or heart assist devices at UPMC since 1985. The future is now with the therapeutic options available.

WHERE: Carnegie Science Center Buhl Planetarium

WHEN: Wednesday/Noon-12:50pm

Environment (Career Cameo Forum):

U.S. Dept. of Energy: National Energy Technology Lab reps
PA Fish & Boat Commission: Aquatic Resources Specialist, Dennis Tubbs;
Duquesne Univ. Environmental Science and Management Dept: Graduate Student

WHERE: Carnegie Science Center Discovery Island

WHEN: Wednesday/Noon-12:50pm

Robotics & Automated Manufacturing (Workshop):

Students manufacture a simple part using an automated system consisting of a CNC milling machine, a robot, a programmable logic controller and various software. Presented by PRIME: Partnership for Regional Innovation in Manufacturing Education.

WHERE: Carnegie Science Center Creative Technology Center

WHEN: Wednesday/Noon-12:50pm

Xtreme Robotics (Open Mike Panel Discussion):

What is the future of robotics? Where do robots already go that we cannot? What are MEMS and what is their role in revolutionizing medicine?

WHERE: Carnegie Science Center Science Stage

WHEN: Thursday/10:00-10:50am and Noon-12:50pm

PANELISTS: *Prof., Computer Science- CMU, Manuela Veloso, Ph.D.*
Pres./CEO/Founder, Verimetra, Inc., Michele Migliuolo, Ph.D.
Physics, Ph.D. Philosophy
Assoc. Research Prof./Sr. Research Scientist, SRI (Space Robotics Initiative), Sanjiv Singh, Ph.D.

Tissue Engineering (Lecture Series):

Now and the Future: Tissue Engineering and Limb Transplantation.

WHERE: Carnegie Science Center Buhl Planetarium

WHEN: Thursday/10:00-10:50am

SPEAKER: *Asst. Prof.- Depts. of Surgery and Bioengineering- U. of Pittsburgh, Dir.- Plastic Surgery Lab, Kacey Marra, MD*



Advanced Materials Processes (Career Cameo Forum):

Axicon Technologies (silent gear developers for the Segway):
Noise & Vibration Engineer, Matt Shope, MSES, BSME;
Test Lab Manager, Chuck Amurgis, MSES, BSME;
Accounting Manager, Courtney Cook;
Mechanical Engineering Student

WHERE: Carnegie Science Center Discovery Island

WHEN: Thursday/10:00-10:50am

Robotics (Workshop):

Students program robots that move autonomously around their environment. They will learn to write simple syntax based programs using "NQC," a shareware available for free over the Internet and to control LEGO robots as they learn about light and touch sensors.

WHERE: Carnegie Science Center Creative Technology Center

WHEN: Thurs/10:00-10:50am/ 11:00-11:50am/Noon-12:50pm

SPEAKER: *Dir. of Educational Outreach, Nat'l Robotics Engineering Consortium, CMU, Robin Shoop*

Environment (Career Cameo Forum):

Dept. of Environmental Protection: Hydrogeologist & Biologist
Friends of the Riverfront, Executive Director, Karl Thomas
Univ. of Pittsburgh Student, Environmental Studies Dept.

WHERE: Carnegie Science Center Discovery Island

WHEN: Thursday/11:00-11:50am

Nanotechnology: Is this the Next Revolution? (Open Mike Panel Discussion):

It is THE wave of the future – the second industrial revolution and the builder's final frontier.

WHERE: Carnegie Science Center Works Theater

WHEN: Thursday/11:00-11:50am

PANELISTS: *Penn State Nanofabrication Facility, Bill Mahoney*
Swanson Center for Micro & Nano Systems, Hong-Koo Kim
Dir. of Mechanical Integrations, Seagate Research, Yao-Tee Hsia

Social Robots (Lecture Series):

How do roboticists, social scientists and designers collaborate to design assistive robotic products?

WHERE: Carnegie Science Center Buhl Planetarium

WHEN: Thursday/11:00-11:50am

SPEAKER: *Asst. Prof. Human-Computer Interaction Ins, and School of Design, CMU, Jodi Forlizzi, MDes.*



Xtreme Weather (Lecture Series):

See state of the art satellite/ground based technology to map and monitor environmental change. Image Visualization and Infrared Spectroscopy Lab project includes achieving major objectives for the new ASTER Instrument on the Terra Spacecraft, infrared cameras used to screen for SARS and more.



WHERE: Carnegie Science Center Buhl Planetarium

WHEN: Thursday/Noon-12:50pm

SPEAKER: *Asst. Prof., Geology and Planetary Sciences, University of Pittsburgh, Michael S. Ramsey, Ph.D.*

Medicine (Career Cameo Forum):

Allegheny County Health Department: *Infectious Disease Division, Irene Hodge; Univ. of Pittsburgh Medical Center: Nurse & Surgical Techs; Duquesne University: Pre-med Student*

WHERE: Carnegie Science Center Discovery Island

WHEN: Thursday/Noon-12:50pm

CSI: Solve This! (Open Mike Panel Discussion):

Explore ballistics, fingerprints, autopsy and crime scene statistics.

WHERE: Carnegie Science Center Science Stage

WHEN: Friday/10:00-10:50am and Noon-12:50pm

PANELISTS: *Allegheny County Coroner's Office:*

Chief Toxicologist/Director Forensics Duquesne, Fred Fochtman Senior Deputy Coroner, Ed Strimlan, MD

Forensic Epidemiologist, Steve Koehler, MPH, Ph.D.

Hard Drives at Nano Scale

(New Frontier Lecture Series):

Seagate was the first company to build more powerful/5.25-inch hard disc drives specifically for the PC – fueling the PC revolution. Now the company is developing technology to increase today's computing capacity 10-100 times!



WHERE: Carnegie Science Center Buhl Planetarium

WHEN: Friday/10:00-10:50am

SPEAKER: *Chief Technical Officer, Seagate Research Professor-Electrical & Computer Engineering- CMU, Mark Kryder, Ph.D.*

Advanced Materials Processes (Career Forum):

U. S. Dept. of Energy: *National Energy Tech Lab Specialist*

PPG Industries: *Research Scientist and Research Technician*

United States Steel Corporation: *Research Engineer*

Duquesne University: *Chemistry Student*

WHERE: Carnegie Science Center Classrooms 1-3

WHEN: Friday/10:00-10:50am

Police Accident: At the Scene

Work in groups with trained student leaders to investigate a traffic accident. Explore actual skid marks, coefficient of friction, formulas (motion/work/energy), and an accident report. Participants conduct a mock trial. Presented by Bethel Park High School teacher, Barb Dietz and Bethel Police Officer, Sergeant McLain.

WHERE: Carnegie Science Center

WHEN: Fri/10-10:50am (Teachers Only)/11-11:50am; Noon-12:50pm

IT & IRAQ: Politics and Systems

(Open Mike Panel Discussion):

What kind of information are we collecting, how are we getting it and what does it really tell us? Society and computing data issues include: validity, anonymity, privacy, bioterrorism surveillance and how they affect us daily.

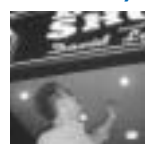
WHERE: Carnegie Science Center Works Theater

WHEN: Friday/11:00-11:50am

PANELISTS: *Asst. Prof. Computer Science, CMU, Lantanya Sweeney, PhD; Prof. Public & Int'l Affairs, Grad School of Int'l Affairs, Univ. of Pittsburgh, Donald Goldstein, PhD; Office of Homeland Security, CMU*

Dark Forces of the Universe (Lecture Series):

Research rated "Top Discovery of the Year" by *Science Magazine!* The speaker is one of the discoverers of new physical evidence of "dark energy" – the mysterious repulsive force that appears to be speeding up the universe!



WHERE: Carnegie Science Center Buhl Planetarium

WHEN: Friday/11:00-11:50am

SPEAKER: *Assoc. Professor, Physics, CMU, Robert Nichol, Ph.D.*

Career Cameo Forum: Mathematics

Univ. of Pittsburgh: *Assoc. Professor, Number Theory, Thomas Metzger, Ph.D.; Faculty, Undergraduate Mathematics, Beverley Michael, Ph.D.; Research Statistician & College Student*

WHERE: Carnegie Science Center Classrooms 1-3

WHEN: Friday/11:00-11:50am

Quantum Weirdness (Lecture Series):

Quantum mechanics becomes real – explained with Tinkertoys, clocks, spinning tops and just a little arithmetic! Author of "A Shortcut Through Time," brings clarity to the strange world of the quantum computer, a device at the intersection of quantum mechanics, computer science and mathematics.



WHERE: Carnegie Science Center Buhl Planetarium

WHEN: Friday/Noon-12:50pm

SPEAKER: *NY Times Science Journalist, George Johnson*

Information Technology (Career Cameo Forum):

SONY Technology Center-Pittsburgh: *Representative*

Pittsburgh Supercomputing Center: *Senior Research Analyst, Nathan Stone, Ph.D. Nuclear Physics*

CMU: *Reps from Computer Science Department*

Point Park University: *Student, Nicholas Woodson*

WHERE: Carnegie Science Center Classrooms 1-3

WHEN: Friday/Noon-12:50pm

Robotics & Automated Manufacturing

Workshop sponsored by PRIME: Partnership for Regional Innovation in Manufacturing Education. *See page 8 for description.*

WHERE: Carnegie Science Center Creative Technology Center

WHEN: Friday/Noon-12:50pm

SciTECH SPECTACULAR - THURSDAY NIGHT

SciTech Spectacular is a dynamic event that unites college students and adults with leaders in industry, academia, science and technology, cultural organizations and other members of the community. Over 500 guests attended last year's Spectacular.

Attend a networking mixer and cutting-edge presentations by leading researchers; participate in provocative panel discussions; enjoy the theatrical production, "1001 Black Inventions," and an OMNIMAX® film. Also, see, hear, and play Earth Harp, the world's largest stringed instrument, performed by MASS Ensemble - a unique troupe of top-notch musicians and an aerialist.

Interact with corporate exhibitors and participate in the SciTech Career Fair featuring regional companies and organizations offering jobs, internships and higher education programs in science, technology and related fields.

Admission: FREE for college students with school ID
Adults - \$25: includes appetizers, 2 drink tickets and activities below. Cash bar available (ID required).

Time	Event	Location
4:00-7:00pm	Corporate Booths Open/Career & Internship Fair	Exhibit Areas/Group Services Lobby
5:30-5:45pm	Opening Remarks	Cafe
5:45-6:30pm	Networking Mixer	Lobby Area/OMNIMAX® Lobby
6:20-6:30pm	MASS Ensemble Performance (Earth Harp)	Lobby Area
6:30-7:15pm	Mars Mission: Beyond the Nightly News with Asst. Prof., Geology and Planetary Sciences, Univ. of Pittsburgh, Michael S. Ramsey	Planetarium (3rd Floor)
6:30-7:15pm	Natural Gourmet Cooking Demo	Kitchen Theater (3rd Floor)
6:30-7:15pm	Science Magazine's Top Discovery of the Year: "Dark Energy" with Assoc. Professor, Physics Department, Astrophysics Group, CMU, Robert Nichol, Ph.D.	Works Theater (4th Floor)
7:30-8:15pm	Explore Quantum Weirdness and Real Possibilities featuring George Johnson, <i>New York Times</i> journalist and author of "A Shortcut Through Time."	Works Theater (4th Floor)
7:30-8:15pm	Natural Gourmet Cooking Demo	Kitchen Theater (3rd Floor)
7:30-8:15pm	1001 Black Inventions (Theater Performance)	Science Stage (1st Floor)
8:15-8:45pm	MASS Ensemble Performance/Raffle Drawing	Lobby Area (1st Floor)
9:00-9:45pm	OMNIMAX® Film: Jane Goodall's Wild Chimpanzees	OMNIMAX® (Ground Floor)
Ongoing	Pittsburgh Center for the Arts "Create Fun Art (Café)" <i>Robotics</i> exhibit (2nd Floor), roving performances by ROBOSTILTS, and more	Various

SciTECH FILM FESTIVAL CAFE - FRIDAY NIGHT

ROBOSTILTS welcomes you to this exciting event. Explore "Quantum Weirdness & Real Possibilities" with George Johnson, award-winning *New York Times* journalist and author of *A Shortcut Through Time*. What impacts our understanding of time? How does this understanding evolve? Talk with George and enjoy the critically acclaimed "Run Lola Run," winner of the Audience Award World Cinema at the 1999 Sundance Film Festival. Film followed by a Snack and Chat.

A partnership with the SciTech Festival and Pittsburgh Filmmakers.

WHEN: April 23, 7:30pm

WHERE: Harris Theater, 809 Liberty Avenue, Downtown Pittsburgh

COST: \$10



What's Next?

See some of *Time Magazine's* coolest inventions of 2003 and *Popular Science's* 2003 "Best of What's New." Includes a green glowing jacket of Luminex, a fabric that emits light and is made of luminous fibers used in the largest scientific experiments of sub-nuclear physics; a bandage capable of stopping severe external hemorrhage (bleeding); Aibo, Sony's 'pet'; a Segway, and more!



WHERE: Carnegie Science Center Lobby
WHEN: Saturday and Sunday/10:00am-5:00pm

Pittsburgh Regional Science and Engineering Fair Winners' Gallery Demonstration

See Highlights, page 2, for full description.



WHERE: Carnegie Science Center Second Floor
WHEN: Saturday & Sunday/10:00am-5:00pm

Festival Exhibits & More!

- Games and prizes and hands-on fun!
- Action Earth: Focus on the Environment includes junkyard treasures transformed into furnishings for your living room - artsy, recycled and fun!
- Take the Pittsburgh Challenge! Be an inventor. What new uses of science and technology can you think of that would make a difference in your life?
- Test your savvy on Pseudoscience - Myth vs. Reality.



WHERE: Carnegie Science Center OMNIMAX® Lobby
WHEN: Saturday and Sunday/10:00am-5:00pm

Tech Zone Exhibits

See page 12 for full description.



WHERE: Carnegie Science Center Lobby, Atrium and OMNIMAX® Lobby
WHEN: Saturday and Sunday/10:00am-5:00pm

ROBOSTILTS Live Performance & Demonstration

ROBOSTILTS is an amazing new performance ensemble. They combine futuristic costuming, innovative props and impressive skill to create awe-inspiring, original entertainment. They will show you how to juggle props, glowing objects and gigantic hoops and reveal the science behind it all.



WHERE: Carnegie Science Center Science Stage
PERFORMANCE: Saturday and Sunday 1:00-1:45pm
DEMONSTRATION: Sat and Sun/11:00-11:30am & 3:30-4:00 pm

Dove Releases

Join the National Aviary in a hands-on program on the process of training homing doves. Experience a live dove release.



WHERE: Outside Carnegie Science Center Main Entrance
WHEN: Saturday and Sunday/Noon, 1:30pm, and 3:00pm

Live Performance - Earth Harp

See Highlights, page 1, for full description.



WHERE: Carnegie Science Center Atrium
WHEN: Saturday & Sunday/10:30-11:00am, 2:30-3:00pm, and 4:30-5:00pm. Try your hand at playing Earth Harp after performances!

"A Wrinkle in Time"

See Highlights, page 1, for full description.



WHERE: Carnegie Science Center Works Theater
SHORT FEATURE: Saturday/11:00-11:45am; Sunday/1:00-1:45pm
FULL LENGTH: Sat & Sun/2:00-3:30 pm;
Saturday night/7:00-8:30pm

"1001 Black Inventions"

See Highlights, page 1, for full description.



WHERE: Carnegie Science Center Science Stage
WHEN: Saturday & Sunday/Noon-12:45pm

Pittsburgh Kite Club

Fly Pittsburgh Kite Club will be providing Indoor Para-Bear Drops using Teddy Bears and other animals that will bravely jump from the upper deck of the OMNIMAX® level to descend safely to the ground floor of the OMNIMAX® Lobby. A huge indoor display will point the way to the Para-Bear fun, as the OMNIMAX® landing windows are filled with an awesome sight of kites and colors. Outdoor displays will be sure to please both the kids and adults, with banners, spinners and even a bubble machine.



WHERE: Carnegie Science Center OMNIMAX® Lobby and Outside
WHEN: Saturday only/10:00am-5:00pm

Star on Screen

Design your own robot costume and star on screen!
Provided: Materials, "How-tos" and props.
Bring: Plenty of imagination.
Take home: A video of your performance!
A partnership with the Pittsburgh International Science and Technology Festival and Pittsburgh Filmmakers



WHERE: Carnegie Science Center Lobby
WHEN: Saturday and Sunday/costume making: 10:00am - 5:00pm; videotaping: 1:00pm - 5:00pm

Natural Gourmet Cooking Demo

Whoever thought eating healthy would be chic? A graduate from the Natural Gourmet Cookery School in Manhattan, New York City "feeds" the trend by demonstrating health-supportive cooking. In 30 minutes, you'll learn some basics and sample attractive, delicious food! Demos may feature appetizers, entrees or desserts.

WHERE: Carnegie Science Center Kitchen Theater
WHEN: Saturday and Sunday/11:00am, 2:00pm & 4:00pm

Quantum Weirdness

Quantum mechanics becomes real – explained with Tinkertoys, clocks, spinning tops and just a little arithmetic! George Johnson, author of "A Shortcut Through Time," brings clarity to the strange world of the quantum computer, a device at the intersection of quantum mechanics, computer science and mathematics.
WHERE: Carnegie Science Center Planetarium
WHEN: Saturday only/Noon-12:30pm and 3:00-3:30pm



2010 and Beyond

What does the future hold for biotechnology, artificial intelligence and information technology? Astro Teller, Ph.D., CEO Body Media, Inc. presents a vision of the future.
WHERE: Carnegie Science Center Planetarium
WHEN: Sunday only/Noon-12:30pm and 3:00-3:30pm



See, hear and play Earth Harp daily!

Tech Zone Exhibitors

Smash test plastics. Use a cryomicroscope. View live frog embryos and sewer sludge. Enjoy the "art of engineering." Plenty of prizes. More than 25 interactive Corporate and Higher Education Exhibits will focus on Pittsburgh's growth industries: Robotics, Information Technology, Biomedical Technology, Environmental Technology and Advanced Materials Processes. Check the daily list of exhibitors at the Festival or www.SciTechFestival.org.



- Alcoa
- Allegheny County Health Department
- Allegheny County Sanitary Authority
- Allegheny-Singer Research Institute/Center for Genomics
- American Education Services and Pennsylvania Higher Education Assistance Agency
- Bayer Corporation
- Carnegie Mellon University
- Duquesne Univ., Bayer School of Environmental Sciences
- Extrude Hone Corporation
- FedEx Ground
- Girl's Math and Science Partnership
- Maglev, Inc.
- Michael Baker Corporation
- NIOSH/SME, Pittsburgh Section
- Pittsburgh Technical Institute
- Pittsburgh Technology Council and Catalyst Connection: Adventures in Technology
- Pittsburgh Regional Science & Engineering Fair
- PPG Industries, Inc.
- PRIME
- Robert Morris University
- Saint Vincent College
- Slippery Rock University
- Sunoco Chemicals
- The Art Institute of Pittsburgh
- U. S. Dept. of Energy, National Energy Technology Laboratory
- United States Steel Corporation
- University of Pittsburgh
- University of Pittsburgh Medical Center
- Westinghouse Electric Company

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Carnegie Mellon University
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Pittsburgh Technical Institute
Robert Morris University
Siemens Westinghouse Power Corporation
Sony Technology Center - Pittsburgh
The Webb Law Firm

GENERAL ADMISSION

Children 3-18- \$10
Adults - \$14
Seniors 62+ - \$10
OMNIMAX® add-on \$5
"A Wrinkle in Time" full length production – Add-on \$5
Evening full length production: \$10 flat rate

SciTech Spectacular (April 22, 2004)
Adults - \$25
Free for College Students with College ID

GROUP ADMISSION

Groups of 15 or more need a reservation.
Students \$5
Required chaperones FREE (1 adult per 10 students required)
Additional adults \$7
OMNIMAX® add-on \$7 for chaperones, \$3 for students
and additional adults
"A Wrinkle in Time" full length production – Add-on \$5
Evening full length production: \$10 flat rate
(Non-school groups need to be 15 or more)

PARTNER LOCATIONS GENERAL ADMISSION

CHILDREN'S MUSEUM OF PITTSBURGH

Robot Zoo (Through May 9, 2004)
www.pittsburghkids.org
10 Children's Way (North Side)
(412) 322-5058
\$5 – Adults
\$4.50 – Children 2-18 and Seniors
\$3.50 for everyone on Thursdays and Children under 2

MATTRESS FACTORY

Make Some Noise (Sunday, April 18, 2004)
www.mattress.org
505 Jacksonia Street (North Side)
(412) 231-3169
\$5 – Everyone

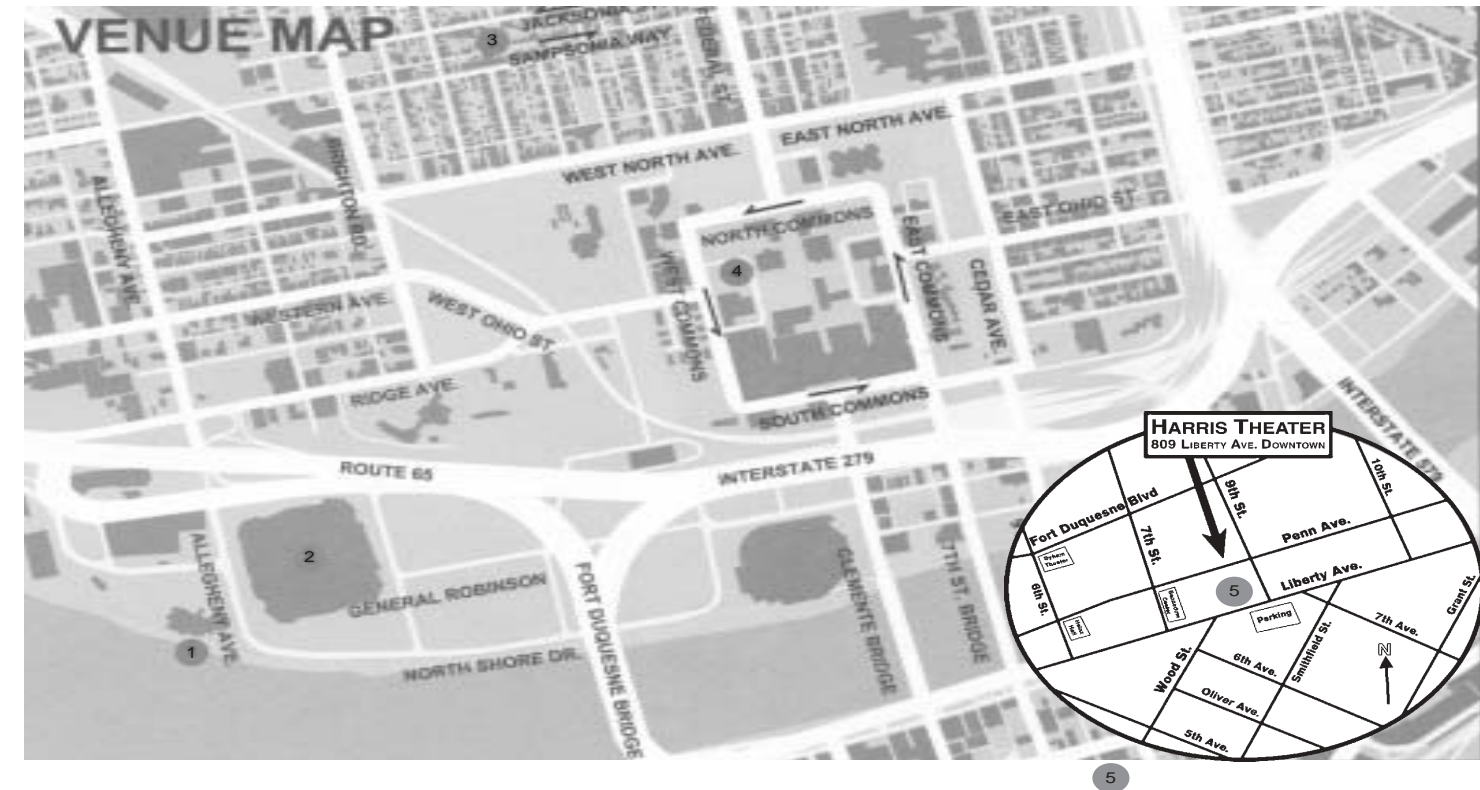
PITTSBURGH FILMMAKERS @ HARRIS THEATER

SciTech Film Festival Cafe (Friday, April 23, 2004)
www.pghfilmmakers.org
809 Liberty Avenue (Downtown)
(412) 471-9700
\$10 – Everyone

PITTSBURGH GLASS CENTER

Gather, Shape and Blow (Wednesday, April 21, 2004)
www.pittsburghglasscenter.org
5472 Penn Avenue (Friendship)
(412) 365-2145
Free Admission

KEY: 1 - Carnegie Science Center / 2 - Heinz Field / 3 - Mattress Factory / 4 - Pittsburgh Children's Museum / 5 - Harris Theater



Visit www.SciTechFestival.org to view additional sponsors.