

Education & Outreach Efforts through ComPADRE

Presented by:

Ann Deml

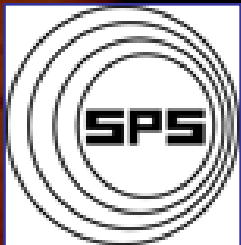
University of Wisconsin-River Falls
Broad Field Science Education Major
Physical Science Emphasis



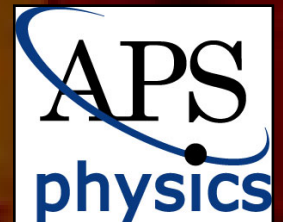
2006 SPS Summer Intern

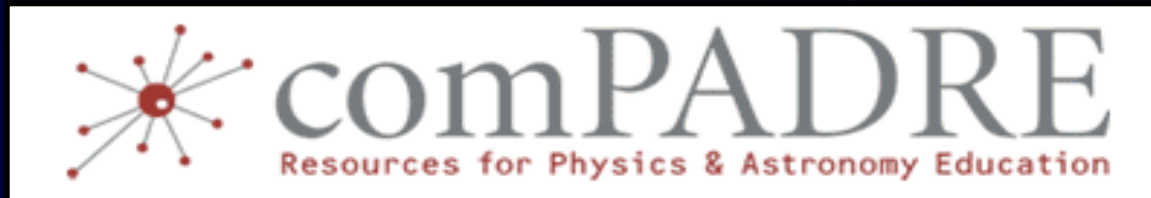
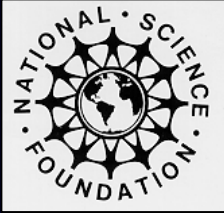
Projects:

APS ComPADRE Science Teacher
Preparation & Informal Learning
Collections



American Physical Society
Society of Physics Students





www.compadre.org

NSF-funded National Science Digital Library

Partnership of Four Organizations:

- American Physical Society (APS)
- American Institute of Physics (AIP) / Society of Physics Students (SPS)
- American Association of Physics Teachers (AAPT)
- American Astronomical Society (AAS)

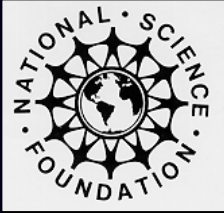


www.compadre.org

Communities for Physics and Astronomy Digital Resources in Education

ComPADRE Vision:

“To create a network of collections that provides learning resources and interactive learning environments that positively influence physics and astronomy students and their teachers in both individual and collaborative settings.”



www.compadre.org

Existing Resource Collections

- [Astronomy Center](#) - Introductory Undergraduate Astronomy Resources
- [The Nucleus](#) - Community Collection for Physics Students
- [PER-Central](#) - Resources in Physics Education Research
- [Physical Sciences Resource Center](#) - General Physics and Astronomy Collection
- [The Physics Front](#) - Resources for High School and Middle School Teachers
- [Physics to Go](#) - Informal Education and Outreach Materials
- [The Quantum Exchange](#) - Resources in Quantum Physics

Four Future Resource Collections

ComPADRE Collection Targeted at the Public

“Physics To Go is a collection of websites where you can learn physics on your own, through games, webcasts, and online exhibits and activities.”

Welcome to Physics to Go!

Physics to Go is a collection of websites where you can learn physics on your own. To find the resources you want, you can search or browse the collection or just check out the sites we feature each month.

Physics in Your World



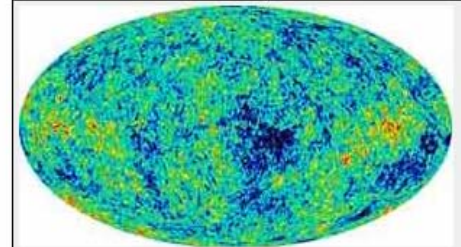
Flow Visualization

The photo shows plumes from the Raleigh-Taylor instability, produced by dropping green food coloring in vinegar and red in sugar syrup. (photo by Laurel Swift [hi-res version](#), as exhibited in [Flow Visualization](#), 2004 Gallery: Get Wet.)

For videos of the Raleigh-Taylor instability and others, see [Fluid Stability Movies](#).

[Login to Comment on this Item](#)

From Physics Research



Physics in Action: What the WMAP!

Image credit NASA/WMAP Science Team [high-res version](#)

This image shows the microwave background--the remnants of the Big Bang fireball radiation--as imaged by NASA's WMAP team. To learn more about the microwave background and this experiment, see the Physics Central feature [Physics in Action: What the WMAP!](#) and NASA's [WMAP site](#).

[Physics Research Archive](#)

Worth a Look

[Through Einstein's Eyes](#)



www.physicstogo.com

Homepage offers four regularly changing features:

- Physics in Your World
- From Physics Research
- Physics at Home
- Worth a Look

Each spotlights a specific topic & links to related resources in the library collection.

Physics in Your World



[Wikipedia: Cable-Stayed Bridge](#)

Photo credit: FIGG

This photo shows the Sunshine Skyway Bridge, in Tampa, FL, the longest concrete cable-stayed bridge in the world. You can learn more about cable-stayed bridges at [Wikipedia: Cable-Stayed Bridge](#), and while you're there, be sure to check out the Sundial Bridge in Redding, CA. Also, don't miss the stunning [Rio-Antirio Bridge](#) in Greece.

My Contributions to Physics to Go

- Search web for images & related activities to feature on Physics to Go
- Obtain image permissions from photographers



My Contributions to Physics to Go

- Compile data & compose descriptions for websites being added to the collection



Welcome back, Ann Deml.
[home](#) - [about](#) - [sitemap](#) - [logout](#)
[administrate](#) - [manage my account](#) - [filing cabinet](#)

LOGOUT | ADVANCED SEARCH | BROWSE | DISCUSSION FORUMS | PHYSICS ON THE ROAD | SUGGEST MATERIALS

Search: Search the Site...
Search

Catalog Item Page 1 - Bubble Tray
[Catalog Item Page 1](#) | [Catalog Item Page 2](#)

Item Type
Web

Titles
Bubble Tray

Locations
http://www.exploratorium.edu/snacks/bubble_tray.html

or mark this item as being inaccessible from the web. This

Subjects
 Delete | Fluids / Dynamics of Fluids



home - about - sitemap - register - login

LOGIN | REGISTER | BROWSE | ADVANCED SEARCH | PHYSICS ON THE ROAD | SUGGEST MATERIALS

Search: Search the Site...
Search

Detail Page

ITSC Fluid Stability Movie
published by Innovative Technical Solutions

This site features videos generated from computer modeling of fluid instabilities--Rayleigh-Taylor (high density fluid over low density fluid), Bernard (fluid heated from below and cooled from above), and Kelvin-Helmholtz (shear motion with fluids of different densities). Each instability is illustrated with several videos of fluids with different properties.
<http://www.itsc.com/movfi.htm>

Subjects	Levels	Resource Types
Fluids - Dynamics of Fluids	- Lower Undergraduate - High School - Graduate School - Upper Undergraduate	- Simulation

Primary Details | **Citation Formats**

Intended Users:	Learner Teacher
Cost:	Does not have an associated cost.
Restriction:	There is no copyright, but the publisher is a company.



ComPADRE Collection Targeted at Institutions Preparing Physical Science Teachers

“The Mission of the Physics Teacher Education Coalition is the improvement of K-12 physics and physical science teacher preparation.”

A screenshot of the Physics Teacher Education Coalition website. The header features the logo on the left and the tagline "Improving the Education of Future Physics and Physical Science Teachers" on the right, with a search bar below. The main content area is divided into three columns. The left column is a navigation menu with links: Home, About PTEC, PTEC Institutions, Coalition Benefits Programs, How to Join PTEC, Conferences, RETs, News & Events, Search Library, Login, Register, About PTEC.org, Terms/Privacy, and Contact Us. The middle column, titled "TOP NEWS", features an "event" link for the "2007 Conference on the Preparation of Physics and Physical Science Teachers", with a brief description of the conference. The right column, titled "PTEC PROGRAMS", includes a map of the United States, a dropdown menu for "Choose a Program...", and a "Go" button. Below this is a "RECENT SUBMISSIONS" section with two entries: "Jun 07 Modeling Theory in Science Education" and "May 30 Real Time Physics Module 2: Heat and Thermodynamics".

The new PTEC site will go live in the Summer of 2006



ComPADRE Collection Targeted at Institutions Preparing Physical Science Teachers

The New PTEC website will feature:

- PTEC Member Institutions' locations, program descriptions, initiatives, & outreach programs
- Scholarship & Professional Development Resources
- Research Experiences for Teachers (RETs)

PTEC Member Institutions « Home »

PTEC Member Institutions

The following institutions have registered with PTEC. If you have a Physics Education Development program that is not listed below, you may contact us to register your institution.

Map data ©2006 Tele Atlas - Terms of Use

Alabama

- [Jacksonville State University](#) - Jacksonville, AL [Inactive] [Edit Program] [Edit Members]

Arizona

- [University of Arizona](#) - Tucson, AZ [Active] [Edit Program] [Edit Members]

Arkansas

- [University of Arkansas](#) - Fayetteville, AR [Active] [Edit Program] [Edit Members]

California

My Contributions to PTEC

- Compose emails sent to PTEC member institutions to request descriptions of their physics education programs
- Provide site feedback & suggestions



SPS Summer Internship Rewards



- Introduction to science policy
- Integration of physics education & outreach
- Enhancement of communication skills

Intern Life After the Workday

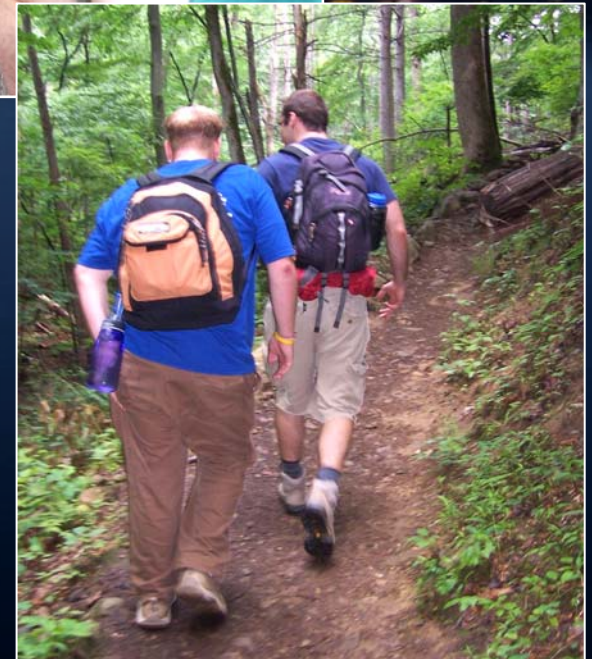
Sightseeing
Hiking
Relaxing



Watching the
Otters at the
Zoo



Visiting the WWII Memorial



Hiking in
Shenandoah
National Park

Intern Life After the Workday

Intern Dinners
Friendship
Fun!



Riding the
Metro
Together



Our 1st Sunday Night Dinner

Roommates...
Just Being
Ourselves



Thank You

American Physical Society:

Advisor Ed Lee - Physics to Go Site Editor

Advisor Ted Hodapp - Physics to Go Principal Investigator
& PTEC Principal Investigator

American Institute of Physics / Society of Physics Students:

Jack Hehn - Director of Education, AIP

Gary White - Director of SPS

Liz Dart Caron - Intern Coordinator

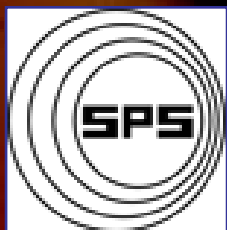
ComPADRE:

Bruce Mason - ComPADRE Principal Investigator

Lyle Barbato - ComPADRE Technical Lead

Dan Maclsaac - PTEC Content Editor

Dr. Earl Blodgett - UW-RF Academic & SPS Advisor



Thank You



Kristen
Katherine



Bill



Jackie

Andy



Alex

Pat

Jeff



Kacey



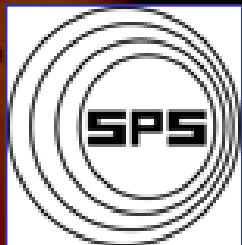
Erin



Questions & Answers

Ann Deml

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Preparation & Informal Learning Collections



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Society of Physics Students

