

The New Mexico Network for Women in Science and Engineering

News from the New Mexico Network for Women in Science and Engineering Summer 2009

Hacienda Vargas

Bed and Breakfast

1431 Highway 313,

Algodones, NM 87001

www.haciendavargas.com

505.867.9115

Annual Meeting and Technical Symposium to be Held at the Hacienda Vargas B&B in Algodones

The 2009 NMNWSE Annual Meeting and Technical Symposium will take place at the beautiful Hacienda Vargas Bed and Breakfast in Algodones, NM, a beautiful getaway nestled in the Rio Grande Valley on the historic El Camino Real. The Hacienda Vargas greets travelers and pilgrims in need of lodging the same as it has since the 17th Century. Rooms at the Hacienda Vargas range from \$89-\$189 per night and include breakfast.



The Hacienda Vargas Bed and Breakfast in Algodones, NM.

Annual Meeting Website

Registration Form

Abstract Submission

all at

nmnwse.org/AM/2009/

Hotel reservations should be made directly with the hotel.

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Elections! The call for nominations for the NMNWSE 2010-2011 Board is open! This is a fantastic way to get involved, meet others and have a chance to make an impact on your community and in general! **See the official call for nominations on pg. 5.** Do you want to get involved but have questions? Contact Elections Chair Georgia Pedicini at gap@lanl.gov.

Important Dates-at-a-Glance

- September 11** * Nominations for Board candidates due
- September 18** * **IMPACT!** Award nominations due
- September 21** * Online voting opens
- September 25** * Abstracts due
- September 25** * Last date for registration w/out late fee
- October 9** * Last date for online late registrations
- October 14** * Online voting closes
- October 16-18** * Annual Meeting

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Note that the Hacienda Vargas has only 7 suites, so we encourage you to reserve your room as soon as possible if you would like to stay at the conference hotel - *be sure to indicate you are coming for the conference and are part of our block reservation*. There is not a special meeting rate. The website for the rooms is at <http://www.haciendavargas.com/rooms.html>

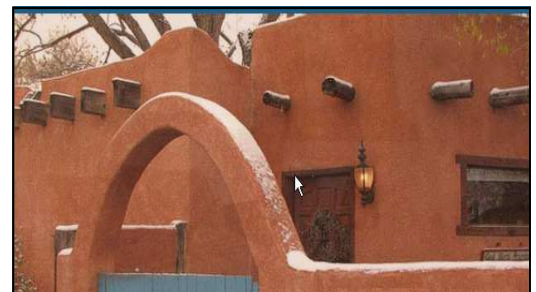
If the Hacienda Vargas is full, or you want more economical choices, there are several nearby places to stay, including 3 motels at the Hwy 44 off-ramp from I-25 in Bernalillo. We suggest entering "hotel", "motel", "inn", or "bed and breakfast" after clicking on the "search nearby" link on the Google map page for the conference hotel, or visit the Rio Rancho Regional Chamber of Commerce or Rio Rancho Convention and Visitor's Bureau - the Rio Rancho Convention and Visitor's Bureau features a rate comparison and booking tool.

Scholarship applicants: Some of the less expensive rooms may be being held for scholarship applicants - please check with the meeting chair, or contact the NMNWSE Board.

The agenda for the meeting is as follows:

Agenda:

- Friday evening—Meet and Greet
- Saturday morning—Annual Meeting
- Lunch—Box lunch, free time
- Saturday afternoon—Technical Symposium/Paper Presentations
- Saturday evening—Wine and Cheese/Technical Poster Session
- Saturday evening—Dinner
- Sunday morning—State Board meeting



**The Hacienda Vargas
Bed and Breakfast**

This is a beautiful venue and a fantastic opportunity for networking—and is especially good to practice giving a formal talk and/or presenting a poster in an encouraging and supportive environment.

We hope that you can join us!

Please help to spread the word about the upcoming annual meeting! You really don't want to miss it!

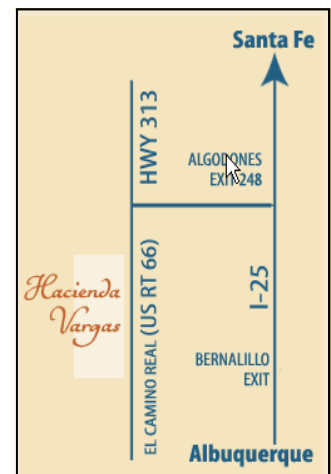
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stay@haciendavargas.com



Los Alamos Women in Science—Expand Your Horizons —Lisa Colletti



Nancy Palomina of Pojoaque Valley Middle School uses hot glue to construct a bridge during a hands-on activity taught by instructors from the U.S. Air Force Academy during Wednesday's Expanding Your Horizons conference. Photographer: Sandra Valdez, LANL.

The northern chapter of NMNWSE (LAWIS) hosted the 30th EYH in Los Alamos on April 1st, 2009.

The event was held at the University of New Mexico, Los Alamos, and drew about 100 middle- and high-school girls from 12 Northern New Mexico schools. The intrepid girls braved wintry weather to attend (a nice April fool's joke from Mother Nature!)

Activities included workshops related to astronomy, aerospace, chemistry, and earth science; a team-building activity; and various demonstrations.

The team activity was to engineer a protective container for an egg. Teams had to build a light weight structure that would keep the egg from cracking when dropped and allow an accurate landing on a specified location from available materials. Points

were given for how light the engineered solution was as well as how close to the landing location it was. This engineering problem is very analogous to what NASA must do when sending a probe to another planet, asteroid, or comet. Surprisingly only 2 eggs cracked, but the weight and accuracy of the system greatly varied! A concurrent conference for teachers was also held. Teachers learned innovative ways to teach math and science.



Kaley Thomas, left, and Stephanie Djidjev, both of Los Alamos High School, measure the acidity and basicity of household products and foods using colored indicators. Photographer: Sandra Valdez, LANL.

**Would you like to get involved with
Expanding Your Horizons?**

**We have EYH Conferences in
Albuquerque
Los Alamos
Silver City**

Please visit nmnwse.org/eyh/

Email the Board at

NMNWSE_BOARD-L@list.unm.edu



Individual Highlights

- **Yolanda Jones King**

Yolanda has moved from the AFRL Space Vehicles Division after 26.5 years with the Laboratory. She is now the Chief Engineer for the Air Force Nuclear Weapons Center (AFNWC), as part of a leadership development program.



Dr. Yolanda Jones King

- **Dana Roberson**

Dana gave a presentation to the American Society for Quality-Agile CMMI, February 16, in Albuquerque.

- **Elizabeth M. Kallman**

Elizabeth won an internal Research and Development award for cluster computing in 2009 (an IR&D winner for the second year in a row). Elizabeth gave a presentation at the Society for Industrial and Applied Mathematics—Computational Science and Engineering (SIAM-CSE) Conference March 2 in Miami, FL, entitled “Scalable Cluster-Based Galerkin Analysis for Kinetics Models of Energetic Materials” and is now helping to edit the SIAM-CSE Wiki page. She also gave a presentation at the APS Shock Compression of Condensed Matter conference in Nashville, TN on June 30 2009 entitled “Incorporation of a Chemical Kinetics Model for Composition B in a Parallel Finite-Element Algorithm” (with Denise Pauler of Ball Aerospace). Elizabeth had a busy and enjoyable summer mentoring a computer science student, Jessica Brohard, from the Ohio State University. Elizabeth and Jessica worked on parallel computing applications at Ball Aerospace in Albuquerque. As part of the Ball Aerospace internship program, Jessica had a chance to tour parts of New Mexico on scheduled field trips, including a visit to the Bradbury Science Museum (as pictured). Elizabeth is also serving as AIAA-Albuquerque Chair for 2009-2010 and recently attended the AIAA Regional Leadership Conference in Denver.



Jessica Brohard, summer intern from Ohio State University, studied algorithms and parallel computing with Elizabeth Kallman

Scholarships and Online Articles

- **African-American Women in Computer Science (AAWSC) Scholarships**

<http://www.cis.famu.edu/~aawcs/>

- **New Research Reveals Significant Barriers to Advancement for Underrepresented Minorities in Technology**

<http://anitaborg.org/news/archive/new-research-reveals-significant-barriers-to-advancement/>

- **Career Advice: What I Wish I'd Known About Tenures —Leslie Phinney**

<http://www.insidehighered.com/advice/2009/03/27/phinney#Comments>

Call for Volunteers to Serve on the 2010 NMNWSE Board

- *Nominations due 11 September*
- *Online voting opens 21 September*
- *In-person voting at the Annual Meeting*

Open positions for the 2010 Board (serves Oct 2009 through Oct 2010) include:

- **Vice-President/President Elect**
- **Secretary**
- **At-Large Members (3-5 openings)**

Please consider nominating someone to serve on the executive committee, including yourself. In particular, we really need a good slate of **Members-at-Large**. All positions are 2-year commitments, except the VicePresident/President/PastPresident 3-year progression.

Descriptions of board positions and duties can be found in our Policies and Procedures, <http://nmnwse.org/npn.html>.

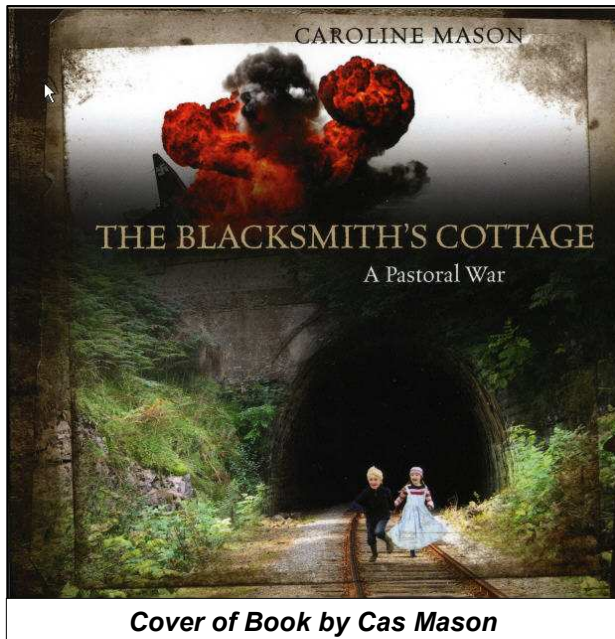
To nominate someone simply email me or the [NMNWSE Board](#) with your suggestion. Please also feel free to contact us if you have any questions (on this or any other issue).

This is your chance to shape NMNWSE to your interests!

Georgia Pedicini, NMNWSE Elections Chair
gap@lanl.gov
505-667-8117

PS: While you're thinking about this, take a look at the Standing Committees on the Board webpage, <http://nmnwse.org/Board.php>, and see if there's an area where you'd like to participate. Election *not* required, just enthusiasm!

Retired NMNWSE Member Cas Mason Launches New Career as Writer



Cover of Book by Cas Mason

Caroline Mason (or Cas as she's known to us), longtime NMNWSE member, has launched her new career as a writer with the release of her first book, "The Blacksmith's Cottage. A Pastoral War", a children's book available from Amazon, Barnes and Noble, Otowi Book Store and the author.

Cas, a native of Britain, came to the US in 1967. The youngest of four children, she became intrigued with her elder siblings stories of wartime Britain where they and their

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Young Women in Computing (YWiC) at NMSU —Elizabeth M. Kallman

I had the privilege of visiting the Young Women in Computing (YWiC) Program at New Mexico State University on August 7th. The goal of the program is to gain the interest of young women in various fields in computer science. I first gave a talk to the students in the morning about some of my own personal experiences, including how it was important to start networking early and find mentors (as in NMNWSE), and then afterwards I joined the parents, friends, students, mentors and professors, to watch the students' final project presentations. This was a real treat. During the summer program, the students learned how to use Alice,



Young Women in Computing 2009

Alice, a software which teaches computer programming in a three-dimensional environment, as well as learning how to use LilyPad Arduino—a microcontroller board for textiles. The students had to learn the C programming language for LilyPad Arduino, and in their presentations many of them had designed T-shirts which played songs and/or had lights which flashed on and off. The program hopes to expand by doing middle school and high school road shows beginning in early 2009 and to create a college mentoring program for young women who are majoring in computer science. The program coordinator is Rachel Jensen and faculty contact is Computer Science Professor Enrico Pontelli. <http://www.cs.nmsu.edu/YWiC/AboutUs.html>

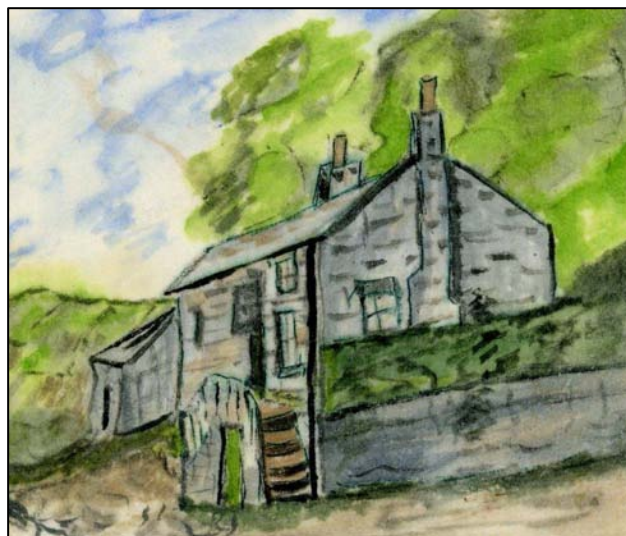
Cas Mason Launches New Career as Writer, cont.

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cousins were evacuated to the remote village of Middlesmoor to escape German bombing and possible invasion. When family letters came to light, detailing the children's adventures of that time, Cas knew they must be told in a book.

Although fictionalized for the novelette form, the story is based on actual events, people and places. The children found that even though they were in a remote village, they could not escape the war, and their imaginary stories of spies proved to be frighteningly true. Disbelieved by adults, the children, helped by a white cat, manage to uncover and prevent a major act of sabotage.

Set against a background of rural Yorkshire, the story gives an evocative picture of life in war-time Britain including the traditional festivals and seasonal events of farm life. The book is illustrated with color paintings and actual photographs of the area.



Painting of Blacksmith's Cottage

Mary Singleton receives 2009 ACS Award for Encouraging Women into Careers in the Chemical Sciences



Mary Singleton

Spanning the range from being the only woman in her class at the start of her career to being the primary plaintiff in a class-action sexual discrimination lawsuit at the end of her career, Mary has seen her share of the hurdles women face in the chemical sciences. Instead of defeating her, those experiences only served to spark her passion for promoting women in the chemical sciences.

When affirmative action programs opened the doors at for her at LLNL's tritium facility in 1974, Mary became an activist in helping her women colleagues and in fighting for equal pay for women. Rising through the ranks during her successful 22 year career at LLNL, she was an effective advocate for equity in the sciences. After retiring, she participated in a class-action lawsuit against LLNL and the University of California for discrimination against women in ranking, promotion, and salaries -- resulting in compensation to women employees for past discrimination, as well as several women being

(Continued on page 8)

Congratulations to Science Fair and Computing Challenge Award Winners!

2009 Southwestern New Mexico Regional Science & Engineering Fair NMSU, Las Cruces, NM, March 6-7, 2009

Two awards of \$25 and tote bag with careers materials.

- * Lori McClanahan, Alamogordo High School, "Musical Mice"
- * Camille Heath, Sierra Middle School, "A Bird's Eye View".

2009 New Mexico Science & Engineering Fair

New Mexico Tech, Socorro, NM, April 3-4, 2009

11 awards of \$50 and tote bag with career materials

- * Megan R Costa and Chanae D Esquibel (team), Roy High School, "Let the Teeth Tell The Tale"



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Singleton ACS Award, cont.

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hired into top-level jobs at LLNL.

"Through Mary's leadership, countless women chemists have seen their careers advance, their wages and promotion inequalities addressed, leadership roles within the American Chemical Society materialize, and dreams of exploring their technical creativity achieved," says Bryan Balazs, an associate program leader at LLNL, as quoted in the Feb 16 Chemical and Engineering News article about Mary's contributions, online at <http://pubs.acs.org/isubscribe/journals/cen/87/i07/html/8707awards6.html>

In addition, Mary has always mentored women chemists at all stages of their careers: while at LLNL, Mary was very active with AAUW and EYH, developing George Washington Carver and Marie Sklodowska Curie workshops.

Mary recently retired to northern New Mexico and has continued her educational outreach interests by becoming active with the NMNWSE EYH conferences. In 2008, she contacted 200 women members of the Central New Mexico Section of the ACS – also sending the invitation out via the NMNWSE listserv - inviting them to join her in starting a local Women Chemists Committee, similar to the one she started in the California ACS section.

NMNWSE joins the chorus of voices saying "Congratulations Mary!"

Congratulations to Science Fair and Computing Challenge Award Winners!

(Continued from page 8)

- * Miquela T Apodaca, St. Therese School, "Can I Give You A Lift? Airfoils"
- * Katherine L Cordwell, Hoover Middle School, "Recovering Equations for Boolean Functions"
- * Holly C Erickson, Los Alamos Middle School, "A Case in Pointe"
- * Samantha Heimgartner, Rio Rancho High School, "The Generational Effects of Cryogenic Freezing on Brassicarapa Seeds"
- * Majdolene Z Khweis, Taos High School, "Don't Let It Slide III: PolyOx Challenge!"
- * Laura B Lane, Aztec High School, "Development of a simple screening method and key of nematodes"
- * Katherine A Schneider, Lincoln Middle School, "Zoom! Faster is Better!"
- * Sophie M Swingle, McCurdy Mission School, "ULF Communications: Reaching the Surface"
- * Caroline J Warden, Los Alamos High School, "Determining the Orbital Elements of Minor Planet 23265"

5 non-monetary awards of tote bag with career materials

- * Donna T Berardinelli, Holy Ghost School, "It's Slime Time!"
- * Analiese Ellis, Jefferson Middle School, "1Up-Bioremediation Using Fungi"
- * Hanna Makk, Sierra Middle School, "Erosion Rocks!!"
- * Soiba K Mansoor, Salam Academy, "The Bitter Truth"
- * Taylor K Roach, Annunciation Middle School, "Multitasking Mania: Effect of Multitasking on Productivity & Performance"

2008-2009 New Mexico Supercomputing Challenge

LANL, Los Alamos, NM, April 20-21, 2009

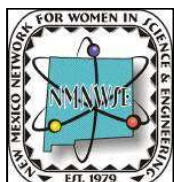
one award of \$100 & Tote Bags with Career Materials.

- * Kristin Cordwell, Manzano High School, "Elliptic Curve Computations "

**Thank you very much to
all who helped!**

New Mexico Network for Women in
Science and Engineering
PO Box 1360
Los Alamos, New Mexico 87544

NMNWSE E-mail: nmnwse-l@list.unm.edu
Board E-mail: NMNWSE_Board-l@list.unm.edu



Supporting women in science, engineering
and allied professions for nearly 30 years.

NMNWSE encourages women to enter into, and develop their careers in science, engineering, and allied professions through annual technical symposia outreach, and local chapter activities.

We are a group of women scientists, mathematicians, educators, managers, community leaders, and parents, most of whom live and work in New Mexico.

Members get together to share common interests, to celebrate our successes, and learn about each other's work.

www.nmnwse.org

IMPACT! Award – Submissions due by 18 September 2009

The Network, in cooperation with the New Mexico Commission on the Status of Women, in 2007 embarked upon a new means to recognize the contributions of women in New Mexico. This fall, the 3rd Annual New Mexico Network for Women in Science and Engineering IMPACT! Award will be presented to a New Mexico woman for her extraordinary efforts in furthering the goals of the Network:

To encourage women to enter into and develop their careers in
science, engineering and allied professions

The honoree will be recognized during the Networks' Annual Meeting and Technical Symposium, which this year will be held 16-18 October 2009 at the Hacienda Vargas Bed and Breakfast in Algodones, New Mexico.

Please visit <http://nmnwse.org/ImpactAward/> for application materials.

The NM Commission on the Status of Women website is:

<http://www.womenscommission.state.nm.us/>

